**APPLICATION FOR THE USE OF ANIMALS IN RESEARCH**

**IACUC Protocol #:**       *(To be assigned by the IACUC)*

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| **1. INSTRUCTIONS** |
| a. Complete each section of this application. b. Submit completed applications and all necessary appendices *(as Word documents)* to iacuc@liberty.edu. |

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| **2. PROTOCOL TITLE** |
| **Title:**  |
| ***Note:*** *The title of this IACUC application must match the title of the grant that supports this research. If the described research activity involving animals is supported by multiple grants with different titles, or a grant that supports this research is awarded later during the 3-year approval period of this protocol, inform the IACUC by completing and submitting a Protocol Amendment Form.* |

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| **3. PERSONNEL** |
| **Principal Investigator (PI):**  |
| Title/Position:  | School/Department:  |
| Campus Address:  |
| Phone:  | LU Email:  |
| **Co-Researcher(s):**  |
| School/Department: |
| Phone:  | LU/Other Email:  |
| ***Note:*** *PI must meet IACUC eligibility requirements. Additional co-researchers may be added on the same line. If you include student researchers, review the applicable* [*IACUC policy*](http://www.liberty.edu/media/9995/policies/instructionalprotocolspecific/Policy_ANIMAL_USE_IN_LEARNING_OR_TEACHING.pdf) *for instructions.* |

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| **4. QUALIFICATIONS** |
| **Name & Degree(s)** | **Role** | **Years of Experience w/ Species** | **Completed Training?****(Yes/No)** |
|   |   |   |  Yes No |
| ***Note:*** *Indicate the role of involved personnel as either* ***Principal Investigator (PI), Co-Researcher (CR),*** *or* ***Technicians/Assistants (T)****. Indicate each individuals years of experience with the species described in this application (ex: 6yrs/Mice, 4yrs/Rabbits). Completion of CITI Training and experience regarding the regulatory, occupational health & safety and care & use aspects of the species requested is required prior to IACUC approval of this protocol. Information about required IACUC training is available on the* [*IACUC website*](http://www.liberty.edu/iacuc)*.* |

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| **5. FUNDING SOURCE & TIMELINE** |
| **Please enter the expected duration of your study** *(up to 3 years)***:**  |
| **Is your study funded** *(departmental funds, grants, or otherwise)***?** No *(Proceed to #6)* Yes *(complete the below information)*: Pending *(complete the below information)*: |
| **Agency/Department/Organization:**  |
| **Grant/Account #** *(if applicable)***:**  |

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| **6. LOCATION** |
| **Location(s) where animals will be housed** *(include specific room numbers):* |
| **Location(s) where protocol will be conducted** *(list all study locations and specific room numbers)*:  |
| **Has housing space/availability been verified with the appropriate facility personnel?** No Yes |
| **Will appropriate social housing and/or enrichment be provided for each species used?** No *(justify)*:  Yes N/A |
| **Indicate personnel responsible for overseeing the housing, feeding, and non-medical care of the animals** *(these individuals must be experienced in the proper care, handling, and use of the species)*:  |
| **Will any animal research/procedural/testing areas outside of the designated animal housing facility be used for this protocol?** No *(Proceed to #7)* Yes *(Complete the below questions)* |
| **OFF-SITE/ANIMAL REMOVAL QUESTIONS** |
| **Provide a scientific or logistical justification for why animals must be removed from the facility:**  |
| **Indicate the location and approximate number of hours the animals will be held at this site:**  |
| **Indicate whether animals will need to be returned to housing after the procedure, or if the procedure will be terminal:**  |
| ***Note:*** *Please list all study locations. Animal removal/re-location from a facility requires prior IACUC approval.* |

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| **7. LITERATURE SEARCH** |
| **Perform a literature search** to demonstrate that suitable alternatives/refinements to these procedures and aspects of these procedures, which may cause pain or discomfort to animals or to this animal use, are not available or applicable. The database(s), years (within the last 10 years), and search term(s) used must be included below: |
| **Databases Used** *(List at least 2)*:  |
| **Years Queried** *(Must be within the last 10 years, justify if otherwise)*:  |
| **Search Terms** *(Include all terms used)*:  |
| **Based on the information obtained from the literature search, please address how the three R’s are incorporated into the study design:*** **Replacement** *(the use of proven methods which avoid or replace the use of animals in research)*:
* **Reduction** *(the use of methods that enable researchers to obtain comparable levels of information from fewer animals)*:
* **Refinement** *(the use of methods that alleviate or minimize potential pain/suffering/distress, and enhance animal welfare)*:
 |
| **As appropriate, please provide citations for this protocol/literature search:**  |
| ***Note:*** *Additional pages of response are permissible if the item and page number(s) are identified.* |

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| **8. PROTOCOL CLASSIFICATION** |
| **Please select the appropriate option:** New Project *(Proceed to #9)* Three-Year Renewal *(Complete the below question)* |
| **Provide a brief summary (a few sentences) describing the work accomplished during the last approval period.** Explain how the work proposed in the renewal extends the previous studies:  |

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| **9. PURPOSE AND PROCEDURES** |
| **State (in lay terms) the purpose and scope of work for this request.** This may include your research hypothesis or teaching objectives:  |
| **As necessary, please define any technical terms or abbreviations used in this project description:**   |
| **Outline or describe (in chronological order) the procedures in which animals will be used.** Include the general sequence and schedule of what will be done to the animals. Section 9 or 11 should include an explanation for assigning the specific number of animals to the different pain categories in Section 10:  |
| **Briefly provide a harm/benefit analysis justifying the use of these animals:**  |
| ***Note:*** *For complicated experimental designs, it may be appropriate to include a chart, diagram, or table which depicts the experiments or sequence of events.* |

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| **10. ANIMAL CHARACTERISTICS AND PAIN CATEGORIES** |
| **List and describe the animals to be studied.** Indicate strain or line designations if rodents are requested. Indicate any special characteristics that will be used for the purposes of the study. Include the anticipated number of animals to be used in each [USDA pain category](http://www.liberty.edu/media/9995/policies/animalcareanduse/Guidelines_USDA_PAIN_AND_DISTRESS_CATEGORIES_IN_IACUC_PROTOCOLS.pdf), and the total number of animals to be involved during the three-year approval period.  |
| **Group Name/Designation:**  |
| Species, Strain, or Line Used:  |
| Characteristics (Age, Sex, Weight):  |
| Cat. B:  | Cat. C:  | Cat. D:  | Cat. E:  | Total:  |
| **Group Name/Designation:**  |
| Species, Strain, or Line Used:  |
| Characteristics (Age, Sex, Weight):  |
| Cat. B:  | Cat. C:  | Cat. D:  | Cat. E:  | Total:  |
| **Group Name/Designation:**  |
| Species, Strain, or Line Used:  |
| Characteristics (Age, Sex, Weight):  |
| Cat. B:  | Cat. C:  | Cat. D:  | Cat. E:  | Total:  |
| **Group Name/Designation:**  |
| Species, Strain, or Line Used:  |
| Characteristics (Age, Sex, Weight):  |
| Cat. B:  | Cat. C:  | Cat. D:  | Cat. E:  | Total:  |
| **Group Name/Designation:**  |
| Species, Strain, or Line Used:  |
| Characteristics (Age, Sex, Weight):  |
| Cat. B:  | Cat. C:  | Cat. D:  | Cat. E:  | Total:  |
| **Group Name/Designation:**  |
| Species, Strain, or Line Used:  |
| Characteristics (Age, Sex, Weight):  |
| Cat. B:  | Cat. C:  | Cat. D:  | Cat. E:  | Total:  |

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| **11. STATISTICAL ANALYSIS** |
| **PART A:** Briefly describe the rationale (using statistical analysis whenever possible) to determine the total number of each species of animals declared above in response to Section 10 that will be needed for use during the three-year approval period:  |
| **PART B:** Include a power analysis justifying the sample size required to detect experimental changes. [Additional resources](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3826013/) are available for performing this analysis from NCBI. If you believe that no power analysis is necessary, justify below:  |
| ***Note:*** *For complicated experimental designs, it may be appropriate to indicate the # of animals needed for each experimental group, the # of groups required, and the analyses conducted using each group. Alternatively, you may include a flow chart depicting the sequence of events and the number of animals required for each step.* |

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| **12. JUSTIFICATION OF ANIMAL USE & ACQUISITION** |
| **Describe the characteristics of the animals** **requested** that justify their use in this protocol:  |
| **How will you obtain the animals requested above** (please provide the vendor, if applicable)**?** |
| ***Note:*** *If animals are not obtained from an IACUC-approved vendor, provide justification above.* |

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| **13. IACUC PRINCIPLES AND PROCEDURES CONSIDERATIONS** |
| **Will animals be involved in procedures that are anticipated to have the potential to produce more than momentary or slight pain, discomfort, or distress?** (Which cannot or will not be alleviated by the use of appropriate anesthetics, analgesics, or tranquilizers) No *(Proceed to # 14)* Yes *(Complete the below questions)* |
| **Within the space below, define the clinical criteria that will be used to ensure timely intervention and treatment, or removal of animals from the study either in advance of, or immediately after recognition of the discomfort.** The earliest possible clinical endpoint, which will contribute to the resolution of the hypothesis, must be identified and used. If avoidance or alleviation of animal pain or discomfort adversely affects the protocol, provide a detailed justification of why treatments cannot be initiated:  |
| **Describe any alternatives to procedures that may cause more than momentary or slight pain or distress. If none exist, provide the sources used to determine that alternatives are not available:**  |

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| **14. ANIMAL DEATH** |
| **Is animal death (excluding death from euthanasia) an intentional endpoint in this protocol?** (e.g., survival analysis, radiation, toxicity, carcinogenesis testing) No *(Proceed to # 15)* Yes *(Complete the below question)* |
| **Explain why an earlier endpoint is not possible:**  |

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| **15. GOOD LABORATORY PRACTICE STUDY** |
| **Will this study be performed in accordance with** [**21 CFR 58**](https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=58) **as a good laboratory practice (**[**GLP**](http://www.fda.gov/downloads/ICECI/EnforcementActions/BioresearchMonitoring/UCM133748.pdf)**) study?** No *(Proceed to # 16)* Yes *(Attach a copy of the GLP study protocol)* |

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| **16. CONTROLLED/SCHEDULED SUBSTANCES** |
| **Will controlled/scheduled substances (per the Drug Enforcement Administration) be used in the protocol?** No *(Proceed to # 17)* Yes *(Complete the following questions)* |
| **DEA Registrant Information** |
| Registrant Name:  |
| Title/Position:  | School/Department:  |
| Campus Address:  |
| Phone:  | LU Email:  |
| **Does the registrant have a DEA registration for the study location?** No Yes |
| **List how and where the controlled/schedule substances will be stored:**   |
| **List the controlled substance(s) to be used:**   |
| **List all authorized users for this protocol:**   |

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| **17. EUTHANASIA** |
| **Will animals be euthanized for post-mortem tissue collection, or will animals be euthanized at the completion of this study?** No *(Indicate final disposition of the involved animals*):  Yes *(Complete the below question)* |
| **Does the method of euthanasia and means of assuring death following euthanasia comply with IACUC principles and policy, which describe the appropriate use of euthanasia, including adherence to AVMA approved methods?** No *(Describe method(s) used, and why a deviation is necessary)*:  Yes *(Complete the chart below)* |
| **Species Used** | **Method(s) of Euthanasia** | **Dose/Route** | **Years of Experience w/ Method** |
|   |   |  /  |   |
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| **\*\*Please complete all required appendices as indicated below. Once this application form is processed by the IACUC office, a request for a signed investigator agreement will be sent to PI and Co-PIs via email.\*\*** |

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| **18.** **APPENDIX SELECTION** |
| **A. SPECIAL HUSBANDRY: Will other than standard routine husbandry and handling practices be required for this protocol** (e.g., food, fluid, or caloric restriction, unique diets/nutritional supplements, specialized caging/environments, or non-standard health monitoring)? No *(Proceed to #18b)* Yes *(Appendix A Required –* [*Jump to Appendix A*](#AppendixA)*)* |
| **B. TEST SUBSTANCES: Will test substances be administered to animals as part of this protocol** (e.g., radioisotopes, toxic, immunogenic, pharmacologic, infectious, carcinogenic agents, biomaterials, or cells)? No *(Proceed to #18c)* Yes *(Appendix B Required –* [*Jump to Appendix B*](#AppendixB)*)* |
| **C. SPECIMEN COLLECTION ANTE-MORTEM: Will specimens be collected from animals prior to euthanasia as part of this protocol** (e.g., tissues, blood, lymph, or other bodily fluids)? No *(Proceed to #18d)* Yes *(Appendix C Required –* [*Jump to Appendix C*](#AppendixC)*)* |
| **D. SURGERY: Will surgery be performed on animals as part of this protocol?** No *(Proceed to #18e)* Yes *(Appendix D Required –* [*Jump to Appendix D*](#AppendixD)*)* |
| **E. OTHER EXPERIMENTAL PROCEDURES: Will animals be subject to experimental procedures other than those described above** (e.g., behavioral manipulations, noxious stimuli, forced exercise, or physical restraint)? No *(Proceed to #18f)* Yes *(Appendix E Required –* [*Jump to Appendix E*](#AppendixE)*)* |
| **F. FIELD STUDY—WILD CATCH: Will wild animals be captured and studied as part of this protocol?** No *(Proceed to #18g)* Yes *(Appendix F Required –* [*Jump to Appendix F*](#AppendixF)*)* |
| **G. BREEDING: Will rodents be bred as part of this protocol?** No Yes *(Submit an Application for a Breeding Protocol)* |

**IACUC APPENDIX A: SPECIAL HUSBANDRY**

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| **1. NON-STANDARD HUSBANDRY AND HANDLING** |
| **Describe all non-standard husbandry and handling practices which are a part of this protocol, including the length of time they will be implemented.** *(E.g., suspended wire mesh caging of rodents, dietary manipulations, food or water deprivation, modified light cycle, specialized housing, confinement, isolation, restricted observation, restricted environmental enrichment, unique requirements of immunocompromised strains):*  |

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| **2. JUSTIFICATION OF NON-STANDARD PRACTICES** |
| **Justify the implementation of the requested husbandry practices:**   |

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| **3. PAIN AND DISCOMFORT** |
| **Will this special husbandry practice cause more than momentary, slight pain, or discomfort to the animals?** No *(Proceed to #4)* Yes *(Describe methods used to alleviate pain or discomfort below):*  |

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| **4. MONITORING** |
| **Describe the methods for monitoring the condition of the animal during the procedure and during the post-procedural period, and indicate whether a log of observations will be kept:**  |

***Note:*** *Log entries describing procedures involving mammals must be kept by the PI in the animal facility.*

[Return to Appendix Selection](#AppendixSelection)

**IACUC APPENDIX B: TEST SUBSTANCES**

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| **1. INFECTIOUS AGENTS** |
| **Are infectious agents used as a part of this protocol?**No *(Proceed to #2)* Yes *(*[*IBC*](http://www.liberty.edu/ibc) *Approval may be required, answer the questions below):* |
| **IBC Protocol #:**   |
| **PI on IBC Protocol:**   |
| **Approval Date:**   |
| **IBC Protocol Title:**   |

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| **2. IONIZING RADIATION** |
| **Will this protocol require the use of Ionizing Radiation/Radioactive Agents?**No *(Proceed to #3)* Yes *(Answer the questions below):* |
| **Has the Radiation Safety Officer been contacted?**No Yes |
| **Describe the irradiation procedure:**   |

***Note:*** *Contact the IACUC office for more information regarding the use of Ionizing Radiation.*

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| **3. HAZARDOUS BIOLOGICAL MATERIALS** |
| **Will this protocol require the use of hazardous biological materials?** *(E.g., human or animal pathogens, tumor cells, recombinant DNA)*:No *(Proceed to #4)* Yes *(Answer the questions below):* |
| **List materials and classifications:**  |
| **Identify the ABSL level:** ABSL-1  ABSL-2  ABSL-3  N/A |

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| **4. BIOLOGICAL FLUIDS & TISSUES** |
| **Will this protocol involve the use or collection of biological bodily fluids or tissues?** *(E.g., blood, blood products, urine, semen, etc.)*:No *(Proceed to #5)* Yes *(Answer the questions below):* |
| **Describe how fluids/tissues will be extracted, where and how long stored and who will have access to the storage area:**   |
| **Describe how the fluids/tissues will be transported:**   |
| **If fluids/tissues are to be used or stored in an area that is not a laboratory** *(e.g., classroom or unrestricted area)* **specify the location, procedures for cleaning the area prior to and after use, and the method of securing material:**   |

***Note:*** *Blood-borne pathogen training is required in the IACUC CITI Training modules.*

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| **5. TUMOR CELLS** |
| **Will this protocol require the use of tumor cells?**No *(Proceed to #6)* Yes *(Answer the question below):* |
| **Were the tumor cells tested for viral contamination?**No Yes |

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| **6. TOXIC CHEMICALS & AGENTS** |
| **Will this protocol require the use of toxic chemicals?** *(E.g., pharmacologic agents, known or suspected mutagens, carcinogens, teratogens, DNA-binding, or other similar agents)*:No *(Proceed to #7)* Yes *(Answer the questions below)*: |
| **Are the toxic chemicals carcinogens, known or suspected mutagens, or teratogens?**No Yes *(List)*:  |
| **Briefly describe the MSDS for the chemicals used:**   |
| **Describe where and how the chemicals will be stored:**   |
| **Describe who will have access to the chemicals used:**   |
| **How will chemicals be disposed of?**   |

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| **7. NEEDLES & SHARPS** |
| **Will this protocol involve the use of needles or other sharps which may be contaminated?**No *(Proceed to #8)* Yes *(Answer the question below):* |
| **Specify the instrument type and method of disposal:**   |

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| **8. AGENTS USED** |
| **Describe each agent below. If more space is needed, attach a separate document with the requested information for each agent, or contact the IACUC office for assistance.** |
| **AGENT:**  |
| **Source/Vendor:**  |
| **Type of Hazard:** Biological  Chemical  rDNA  Radioactive |
| **ABSL Level:**  ABSL-1  ABSL-2  ABSL-3  N/A |
| **Species:**   |
| **Dose Administered mg/kg or ug/g:**   |
| **Route of Exposure:**   |
| **Frequency of Exposure:**   |
| **Hazard excreted or shed?**No Yes *(Describe how):*  |
| **Animal Housing Location:**   |
| **Animal Housing Duration:**   |
| **Effect on Animal:**   |
| **Purpose** *(Brief description)*:  |
| **More than momentary discomfort or distress?**No Yes *(Answer the question below):* |
| **Describe the method to alleviate or justify non-treatment:**   |
| **AGENT:**  |
| **Source/Vendor:**  |
| **Type of Hazard:** Biological  Chemical  rDNA  Radioactive |
| **ABSL Level:**  ABSL-1  ABSL-2  ABSL-3  N/A |
| **Species:**   |
| **Dose Administered mg/kg or ug/g:**   |
| **Route of Exposure:**   |
| **Frequency of Exposure:**   |
| **Hazard excreted or shed?**No Yes *(Describe how):*  |
| **Animal Housing Location:**   |
| **Animal Housing Duration:**   |
| **Effect on Animal:**   |
| **Purpose** *(Brief description)*:  |
| **More than momentary discomfort or distress?**No Yes *(Answer the question below):* |
| **Describe the method to alleviate or justify non-treatment:**   |
| **AGENT:**  |
| **Source/Vendor:**  |
| **Type of Hazard:** Biological  Chemical  rDNA  Radioactive |
| **ABSL Level:**  ABSL-1  ABSL-2  ABSL-3  N/A |
| **Species:**   |
| **Dose Administered mg/kg or ug/g:**   |
| **Route of Exposure:**   |
| **Frequency of Exposure:**   |
| **Hazard excreted or shed?**No Yes *(Describe how):*  |
| **Animal Housing Location:**   |
| **Animal Housing Duration:**   |
| **Effect on Animal:**   |
| **Purpose** *(Brief description)*:  |
| **More than momentary discomfort or distress?**No Yes *(Answer the question below):* |
| **Describe the method to alleviate or justify non-treatment:**   |
| **AGENT:**  |
| **Source/Vendor:**  |
| **Type of Hazard:** Biological  Chemical  rDNA  Radioactive |
| **ABSL Level:**  ABSL-1  ABSL-2  ABSL-3  N/A |
| **Species:**   |
| **Dose Administered mg/kg or ug/g:**   |
| **Route of Exposure:**   |
| **Frequency of Exposure:**   |
| **Hazard excreted or shed?**No Yes *(Describe how):*  |
| **Animal Housing Location:**   |
| **Animal Housing Duration:**   |
| **Effect on Animal:**   |
| **Purpose** *(Brief description)*:  |
| **More than momentary discomfort or distress?**No Yes *(Answer the question below):* |
| **Describe the method to alleviate or justify non-treatment:**   |
| **AGENT:**  |
| **Source/Vendor:**  |
| **Type of Hazard:** Biological  Chemical  rDNA  Radioactive |
| **ABSL Level:**  ABSL-1  ABSL-2  ABSL-3  N/A |
| **Species:**   |
| **Dose Administered mg/kg or ug/g:**   |
| **Route of Exposure:**   |
| **Frequency of Exposure:**   |
| **Hazard excreted or shed?**No Yes *(Describe how):*  |
| **Animal Housing Location:**   |
| **Animal Housing Duration:**   |
| **Effect on Animal:**   |
| **Purpose** *(Brief description)*:  |
| **More than momentary discomfort or distress?**No Yes *(Answer the question below):* |
| **Describe the method to alleviate or justify non-treatment:**   |

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| **9. PERSONNEL EXPOSURE RISKS** |
| **Indicate which of the following present potential exposure risks to personnel** *(Check all that apply)*: |
|  Urine |  Saliva |
|  Feces |  Aerosols |
|  Blood |  Bedding |
|  Contact w/ Animal Lesions |  Animal Bites/Scratches |
|  Contact w/ Mucous Membranes  |  Penetrating Injuries |
|  Human or NHP Cells/Fluids/Tissues |  Other:  |

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| **10. SAFETY & COMPLIANCE INFORMATION** |
| **Describe the following:** |
| **Disposal of animals, waste, tissues, bedding, and other potentially contaminated material:**   |
| **PPE Used:**  |
| **Safety Monitoring Procedures:**  |
| **Personnel Training** *(other than mandated IACUC training, if applicable)*:  |
| **Special Caging, Biosafety Cabinets, or Containment Equipment:**  |
| **Signage Information:**  |
| **Cage Sanitation/Disinfection Procedures:**  |
| **Decontamination of other work surfaces and equipment:**  |
| **Special handling procedures** *(if applicable)*:  |
| **Special immunizations or tests required for handling agents:**  |
| **Other considerations:**   |

***Note:*** Signature of the Principal Investigator on the IACUC application ensures that research personnel will abide by all relevant, universal precautions regarding blood-borne pathogens, appropriate biosafety level precautions, radiation safety procedures, and chemical hygiene.

[Return to Appendix Selection](#AppendixSelection)

**IACUC APPENDIX C: SPECIMEN COLLECTION ANTE MORTEM**

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| **1. TISSUE COLLECTION INFORMATION** |
| **Tissue/Fluid Collected** | **Amount** | **Frequency** | **Method(s) of Collection** |
|   |   |   |   |
|   |   |   |   |
|   |   |   |   |
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***Note:*** *In the space provided above, list the tissues (e.g., blood, spleen, liver, lymph node, tail tips) to be collected ante mortem from animal(s), including the amount and frequency, and the method to be used (e.g., needle aspiration, punch biopsy, snip excision, or surgical excision). Remember to retain log entries describing ante mortem tissue collection from mammals in the animal facility.*

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| **2. PAIN AND DISCOMFORT** |
| **Will the procedure cause more than momentary pain or discomfort?**  |
|  No *(Describe the procedure, method of restraint, and whether tranquilizers, sedatives, or anesthetics will be provided)*:  |
|  Yes *(Answer the following questions)*: |
| **Describe the procedure:**   |
| **How will anesthesia be induced/maintained?** *(Include dose and route of agents used)*:  |
| **Will post-operative or procedural anesthetics be used?** No *(Justify)*:  Yes *(Include dose and frequency of administration)*:  |
| **Describe post-procedural methods of minimizing and/or alleviating pain/discomfort:**   |

***Note:*** *Invasive procedures that are performed while animals are anesthetized and 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”. Non-invasive procedures such as needle aspiration, respond “NO”.*

[Return to Appendix Selection](#AppendixSelection)

**IACUC APPENDIX D: SURGERY**

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| **1. TYPE OF SURGERY**  |
|  **Minor Surgery** *(any invasive operative procedure which does not enter a body cavity; only skin, mucous membrane, and/or connective tissue is incised and causes little or no physical impairment, e.g., simple vascular cut-down for catheter placement or implanting radio tags or pumps in subcutaneous tissues)* |
|  **Major Surgery** *(any invasive operative procedure in which a body cavity is entered, or if substantial impairment of physical or physiological function occurs, e.g., extensive resection, removal of organs, significantly altering anatomy, or orthopedic procedures)* |

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| **2. PRE-OPERATIVE CARE** |
| **Describe the pre-operative medications, including dose and route**. *(this includes tranquilizers, sedatives, pre-anesthetics, and general anesthetics)*:  |
| **Describe the pre-operative procedures.** *(withholding food or water, shaving hair to prevent contamination, germicidal scrubs, draping, placement of leads, probes, or catheters)*:  |

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| **3. PARALYZING AGENTS** |
| **Will this protocol require the use of paralyzing agents?** No *(Proceed to #4)* Yes *(Justify)*:  |

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| **4. SURGICAL PROCEDURES** |
| **Describe the surgical procedures in chronological order and in enough detail so that the IACUC will be able to determine what is being performed on the animal.** *(Intra-operative monitoring, medications, and support are described in #5)*:  |

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| **5. INTRA-OPERATIVE PROCEDURES** |
| **Describe methods used for monitoring intra-operative anesthesia, and all intra-operative medications and/or support.** *(E.g., rate and depth of respiration, toe-pinch reflex)*:  |

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| **6. RECOVERY** |
| **Will the animal(s) regain consciousness from anesthesia following surgery?** No *(****Stop here****. This appendix is now complete.* [*Return to Appendix Selection*](#AppendixSelection)*)* Yes *(Proceed to #7)* |

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| **7. ASEPTIC TECHNIQUE** |
| **Will aseptic techniques be used as a minimum standard of care?** *(This includes working in an uncluttered area, wearing surgical gloves and a clean lab coat, preparation of the surgical site with disinfectant, sterilizing of instruments, and appropriate wound closures)*. No *(Justify)*:  Yes *(Proceed to #8)* |

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| **8. MONITORING** |
| **Describe the interval and manner of immediate post-operative monitoring, and clinical re-assessment prior to animal recovery.** *(Include information regarding the frequency of evaluation, and in what manner the animal(s) will be monitored post-operatively)*:  |

***Note:*** *Animals recovering from general anesthesia must be monitored at least until they are sternal recumbent and capable of purposeful movement.*

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| **9. MULTIPLE SURGERIES** |
| **Will more than one major surgical procedure be performed on a single animal?** No *(Proceed to #10)* Yes *(Justify):*  |

***Note:*** *If a survival surgical procedure is followed by a non-survival surgical procedure, respond with “No”.*

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| **10. POST-OPERATIVE CARE** |
| **Describe post-operative care after the animals have been returned to long-term housing.** *(Including administration of analgesics, medications, fluids, and any other support methods. Include dose, route, and frequency of post-operative analgesics and medications)*:  |

***Note:*** *If using skin sutures or staples, indicate that they will be removed within 10 days post-operatively.*

[Return to Appendix Selection](#AppendixSelection)

**IACUC APPENDIX E: OTHER EXPERIMENTAL PROCEDURES**

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| **1. DESCRIPTION OF PROCEDURE** |
| **Describe the procedure(s)** *(e.g., behavioral manipulation, forced exercise, noxious stimuli, physical restraint)*:  |

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| **2. PAIN & DISCOMFORT** |
| **Will the procedure cause more than momentary, slight pain or discomfort to the animals?** No *(Proceed to #3)* Yes *(Complete the table below):* |
| Procedure | Frequency | Duration | Method to Minimize Discomfort |
|   |   |   |   |
|   |   |   |   |
|   |   |   |   |
|   |   |   |   |

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| **3. MONITORING** |
| **Describe the methods for monitoring the condition of the animal(s) during the procedural and post-procedural period.** *(Indicate that an observation log will be maintained by the PI)*:  |

***Note:*** *Log entries describing procedures involving animals must be kept by the PI in the animal facility.*

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| **4. PHYSICAL RESTRAINT** |
| **Will the procedure require that physical restraint be used?** No *(****Stop here****. This appendix is now complete.* [*Return to Appendix Selection*](#AppendixSelection)*)* Yes *(Answer the questions below)*: |
| **Describe the frequency and period of restraint, and how animals will be trained to adapt to the restraint:**  |
| **Describe why alternatives to restraint are not being utilized:**   |
| **Will animals that fail to adapt be removed from the study?** No *(justify):*  Yes |

[Return to Appendix Selection](#AppendixSelection)

**IACUC APPENDIX F: FIELD STUDY—WILD CATCH**

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| **1. STUDY LOCATION** |
| **Describe the location of the study site(s), property owners, and persons to contact in order to gain access:**  |

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| --- |
| **2. SPECIAL PERMITS** |
| **Describe any applicable/required scientific collection permits, and submit copies with your application:**  |

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| **3. ANIMAL TRANSPORT** |
| **Will animals be transported?** No *(Proceed to #4)* Yes *(Describe)*:  |

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| --- |
| **4. STUDY TYPE** |
| **Indicate the type of study below, and complete the corresponding sections:** Live Capture and Release *(Complete* [*SECTION A*](#SectionA)*)* Live Capture for Long-term Study *(Complete SECTIONS* [*A*](#SectionA) *&* [*B*](#SectionB)*)* Non-Survival Collection *(Complete* [*SECTION C*](#SectionC)*)* |

**SECTION A—LIVE CAPTURE AND RELEASE**

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| **A1. METHOD OF CAPTURE** |
| **Describe the method of capture to be used:**  |
| **Device(s) to be used for capture** *(including how often they will be checked)*:  |
| **Estimated time animals will be held prior to release:**  |

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| **A2. RELEASE OF ANIMALS** |
| **Indicate where captured animals will be released.** *(If release is at a site other than the site of capture, justify)*:  |

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| **A3. ANIMAL INJURY & MORTALITY** |
| **Indicate the expected injury/mortality rates:**  |
| **Indicate what precautions will be used to minimize injury and/or mortality:**  |

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| **A4. DRUG ADMINISTRATION** |
| **Will drugs or pharmaceuticals be administered to animals as part of this protocol?** No *(Explain why drugs that might alleviate pain/distress will be withheld)*:  Yes *(Answer the following questions)*: |
| **Indicate which drug(s) will be used, reasons for use, dosage, frequency, and method of administration:**   |
| **Will DEA regulated drugs be used?** No *(Proceed to #A5)* Yes *(Answer the following question)*:  |
| **Provide the name of the drugs to be used and license holder’s name:**   |

***Note:*** *Attach copies of any necessary permits.*

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| **A5. EUTHANASIA** |
| **In the event of an injury or illness necessitating euthanasia, indicate the method that will be used:**  |
| **Indicate the person who will perform the euthanasia, along with their training and experience with the procedure:**  |
| **Indicate how carcasses will be disposed of:**  |

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| **A6. NON-TARGET CAPTURES** |
| **Indicate what precautions will be taken to reduce non-target captures:**   |

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| **A7. MARKING, TAGGING, & TELEMETRY** |
| **Will marking, tagging, and/or telemetry devices be used?** No *(Proceed to #A8)* Yes *(Answer the following questions)*: |
| **Describe any marking or tagging procedures that will be used, who will perform the procedure, and what training they have** *(if toe-clipping will be utilized, justify below)*:  |
| **Will a telemetry package be attached to the animal?** No *(Proceed to #A8)* Yes *(Answer the following questions)*: |
| **Provide the total weight of the telemetry package:**  |
| **Indicate type of antenna** *(including length)*:  |
| **Indicate the method of attachment:**   |
| **Describe procedures for removing the telemetry package from the animal:**   |

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| **A8. BLOOD AND TISSUE SAMPLES** |
| **Will blood and/or tissue samples be collected?** No *(Proceed to #A9)* Yes *(Answer the following questions)*: |
| **Describe procedures to be performed** *(including number and weight/volume of the samples to be taken)*:  |
| **Indicate procedures to be taken to prevent infection and minimize potential pain and distress:**   |

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| **A9. MONITORING HEALTH STATUS** |
| **Describe procedures for monitoring animal health, including the parameters used to determine health status:**  |

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| **A10. PERSONNEL SAFETY** |
| **Describe precautions taken to ensure the safety of personnel:**  |

**SECTION B—CAPTURE FOR LONG TERM STUDY**

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| **B1. HOUSING** |
| **Describe where the animals will be housed once captured:**  |
| **Describe precautions that will be taken to guard against escape:**  |

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| --- |
| **B2. MONITORING** |
| **Describe how the animals will be monitored and treated to protect other animals in the same housing facility from communicable disease(s):**  |
| **Describe how animals will be monitored for parasites and communicable diseases, including treatment:**  |

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| --- |
| **B3. PERSONNEL** |
| **Describe precautions taken to ensure the safety of personnel:**  |
| **Describe training provided for animal care staff to ensure appropriate care of the wild catch animals and the safety of caretakers:**  |

**SECTION C—NON-SURVIVAL COLLECTION**

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| **C1. ANIMAL CAPTURE AND CARE** |
| **Describe how long animals will be held prior to sacrifice:**  |
| **Describe the procedures to be used for capture:**  |
| **Describe precautions that will be taken to prevent non-target mortalities:**  |
| **Describe how carcasses will be disposed of:**  |

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| **C2. DOCUMENTATION** |
| **Describe what documentation will be used to maintain inventory numbers (target and non-target), and where the documentation will be stored:**  |
| **Describe what documentation will be maintained to document proper disposal, and where the documentation will be stored:**  |

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| **C3. PERSONNEL SAFETY** |
| **Describe precautions taken to ensure the safety of all involved personnel:**  |

[Return to Appendix Selection](#AppendixSelection)