**University of Delaware**

**Institutional Animal Care and Use Committee**

**Application to Use Animals in Research**

**(New and 3-Yr submission)**

|  |
| --- |
| **Title of Protocol:** Click here to enter text. |
| **AUP Number:** Click here to enter text. | **🡨 (4 digits only — if new, leave blank)** |
| **Principal Investigator:** Click here to enter text. |
| **Common Name (Strain/Breed if Appropriate):**  Click here to enter text.**Genus Species:**  Click here to enter text.  |
| **Date of Submission:** Click here to enter text. |

|  |
| --- |
| **Official Use Only**IACUC Approval Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date of Approval: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Principal Investigator Assurance**

|  |
| --- |
| 1. I agree to abide by all applicable federal, state, and local laws and regulations, and UD policies and procedures.
 |
| 1. I understand that deviations from an approved protocol or violations of applicable policies, guidelines, or laws could result in immediate suspension of the protocol and may be reportable to the Office of Laboratory Animal Welfare (OLAW).
 |
| 1. I understand that the Attending Veterinarian or his/her designee must be consulted in the planning of any research or procedural changes that may cause more than momentary or slight pain or distress to the animals.
 |
| 1. I declare that all experiments involving live animals will be performed under my supervision or that of another qualified scientist. All listed personnel will be trained and certified in the proper humane methods of animal care and use prior to conducting experimentation.
 |
| 1. I understand that emergency veterinary care will be administered to animals showing evidence of discomfort, ailment, or illness.
 |
| 1. I declare that the information provided in this application is accurate to the best of my knowledge. If this project is funded by an extramural source, I certify that this application accurately reflects all currently planned procedures involving animals described in the proposal to the funding agency.
 |
| 1. I assure that any modifications to the protocol will be submitted to by the UD-IACUC and I understand that they must be approved by the IACUC prior to initiation of such changes.
 |
| 1. I understand that the approval of this project is for a maximum of one year from the date of UD-IACUC approval and that I must re-apply to continue the project beyond that period.
 |
| 1. I understand that any unanticipated adverse events, morbidity, or mortality must be reported to the UD-IACUC immediately.
 |
| 1. I assure that the experimental design has been developed with **consideration of the three Rs: reduction, refinement, and replacement, to reduce animal pain and/or distress and the number of animals used in the laboratory.**
 |
| 1. I assure that the proposed research does not unnecessarily duplicate previous experiments. ***(Teaching Protocols, including cooperative extension demonstrations, Exempt)***
 |
| 1. I understand that by signing, I agree to these assurances.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ Signature of Principal Investigator Date |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Names of All Persons working on This Protocol**I certify that I have read this protocol, accept my responsibility and will perform only those procedures that have been approved by the IACUC.

|  |  |
| --- | --- |
|  **Name** |  **Signature** |
|  1. Click here to enter text. |  |
|  2. Click here to enter text. |  |
|  3. Click here to enter text. |  |
|  4. Click here to enter text. |  |
|  5. Click here to enter text. |  |
|  6. Click here to enter text. |  |
|  7. Click here to enter text. |  |
|  8. Click here to enter text. |  |
|  9. Click here to enter text.  |  |
| 10. Click here to enter text. |  |

If after hours participation is required by students on project involving **agricultural animals**, please describe how this is handled and the times and days that students may be on site Click here to enter text. |

|  |
| --- |
| The Animal Use Protocol form has been developed to facilitate review of requests for specific research, teaching, or biological testing projects. The review process has been designed to communicate methods and materials for using animals through administrative officials and attending veterinarians to the Institutional Animal Care and Use Committee (IACUC). This process will help assure that provisions are made for compliance with the Animal Welfare Act, the Public Health Service Policy on Humane Care and Use of Laboratory Animals and the Guide for the Care and Use of Laboratory Animals.Please read this form carefully and fill out all sections. Failure to do so may delay the review of this application. Sections that do not apply to your research must be marked “NA” for “Not Applicable.”This application form must be used for all NEW or THREE-YEAR RENEWAL protocols.*All answers are to be completed using Arial 12 size font.*All questions must be answered in their respective boxes and NOT as attachments at the end of this form.Please complete any relevant addenda: Hybridoma/Monoclonal Antibodies (“B”)  Polyclonal Antibodies (“C”) Survival Surgery (“D”) Non-Survival Surgery (“E”)  Wildlife Research (“F”)New: Sample answer to select questions can be found at <https://research.udel.edu/animal-subjects-resources/> under “References / Protocol answer examplesIf help is needed with these forms, contact the IACUC Coordinator at extension 2616, the Facility Manager at extension 2400 or the Attending Veterinarian at extension 2980. |

|  |
| --- |
| **1. Principal Investigator Information:** |
| a. Name:  |  Click here to enter text. |
| b. University/Company:  |  Click here to enter text. |
| c. Department:  |  Click here to enter text. |
| d. Building/Room:  |  Click here to enter text. |
| e. Office Phone:  |  Click here to enter text. |
| f. Lab Phone(s): | Click here to enter text. |
| g. Home Phone:  |  Click here to enter text. |
| h. Mobile Phone:  |  Click here to enter text. |
| i. E-Mail Address:  |  Click here to enter text. |
| **2. Protocol Status:** |
| a. [ ]  New Protocol ***OR*** [ ]  Re-submission due to three (3) completed years. If re-submission, please provide the following information for the past year:* **Record of Animal Use:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Common Name** | **Genus****Species** | **Total Number Previously Approved** | **Number Used** **To Date** |
| 1. Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

* **Progress Report:** Please provide a brief update on the progress made in achieving the aims of the protocol:

Click here to enter text. * **Problems or Adverse Effects:** Please describe any unanticipated adverse events, morbidity, or mortality, the cause if known, and how these problems were resolved. If there were none, this should be indicated.

Click here to enter text.  |
| b. [ ]  Research ***OR*** [ ]  Teaching or Cooperative Extension |
| c. [ ]  Laboratory Animals ***OR*** [ ]  Wildlife ***OR*** [ ]  Agricultural Animals If “Wildlife” please complete Addendum “F”For agricultural animal protocols, please list the name and contact information for veterinarian who is on-call . A copy of the protocol should be shared with the veterinarian Click here to enter text. |
| d. Proposed Start Date: Click here to enter text. |
| e. Proposed Completion Date: Click here to enter text. |
| f. Funding Source: Click here to enter text. |
| g. Award Number if applicable: Click here to enter text. |
|  |
| **3. Non-Scientific Summary:** In language understandable to a ***high-school senior, very briefly*** ***describe*** the goals and significance of this study. (Sample answer can be found at <https://research.udel.edu/animal-subjects-resources/> under “References / Protocol answer examples)1. Specific Scientific Goals: Click here to enter text.
2. Significance of this Research or Teaching/Cooperative Extension Demonstration (including the possible benefits to human and/or animal health, the advancement of scientific knowledge, or the betterment of society): Click here to enter text.
 |
| **4. Experimental Design:** Explain the experimental design. This description should allow the IACUC to understand fully the experimental course of an animal or group of animals from its entry into the experiment to the endpoint of the study. The inclusion of flow charts, diagrams, and/or tables are greatly encouraged to explain experimental design or sequential events. Please reference any appropriate approved SOPsBe sure to include all animal events and related details, i.e.,* **All Procedures**-bleedings (including needle size), injections, identification methods, genotyping methods, physiological measurements, surgical procedures, euthanasia, etc.
* **Procedural details**–number of animals involved in procedure, approximate animal weight, if relevant (for injections, bleeding, etc.), route, frequency, volume, etc.
* **Pharmaceutical**-**grade and non-pharmaceutical grade compounds** – Identify any drugs, biologics, or reagents that will be administered to animals.
* **Vaccines and organisms used for challenge** – Identify any experimental or commercial vaccines and/or microorganisms used for challenge of the animals.
* **Federal or other permits** – Identify any federal or other permits needed to obtain vaccines or organisms used in animal studies.
* **Names of surgical procedures** (but reserve the surgical details for the proper Surgical Addenda)

***(Describe)***: Click here to enter text. |
| 1. **Administration of compounds**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Drug name or class of drug** | **Volume** | **Dose or range of doses** | **Route (IP, IV, SC, IM, PO)** | **Frequency** | **Duration**  | **Pharma-grade** **Yes or No** |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**If non-pharmaceutical grade compounds are used, they must be justified (such as pharmaceutical-grade not available) and the method to ensure appropriate preparation must be described**: Click here to enter text. |
| 1. **Does this work involve surgery or antibody production** [ ]  Yes [ ]  No

If yes, please complete Addendum B for hybridoma/monoclonal antibody production, Addendum C for polyclonal antibody production, Addendum D for survival surgery and Addendum E for terminal surgery  |
| **Refinement, Reduction & Replacement****When using animals for research, it is important to consider the three Rs: reduction, refinement, and replacement to reduce both animal distress and the number of animals used in the laboratory.** **Reduction:**   Minimizing the number of animals used**Refinement:** Using techniques and procedures to reduce pain and distress**Replacement:**   Using non-animal methods or lower phylogenetic organisms |
|  **Justification for the Use of Animals** (instead of *in vitro* methods) (Sample answer can be found at <https://research.udel.edu/animal-subjects-resources/> under “References / Protocol answer examples)***(Check all that apply and explain):*** |
| 1. [ ]  The complexity of the processes being studied cannot be duplicated or modeled

 in simpler systems: ***(Explain)***: Click here to enter text. |
| 1. [ ]  There is not enough information known about the processes being studied to design

 non-living models: ***(Explain)***: Click here to enter text. |
| 1. [ ]  Other: ***(Explain)***: Click here to enter text.
 |
| **Justification for Species Appropriateness:** (Sample answer can be found at <https://research.udel.edu/animal-subjects-resources/> under “References / Protocol answer examples) **(*Check all that apply and explain)***: |
| 1. [ ] A large database exists, allowing comparisons with previous data: ***(Explain)***:Click here to enter text.
 |
| 1. [ ] The anatomy or physiology is uniquely suited to the study proposed: ***(Explain)***: Click here to enter text.
 |
| 1. [ ]  This is the lowest species on the phylogenic scale suitable to the proposed study: ***(Explain)***: Click here to enter text.

  |
| 1. [ ]  Other: ***(Explain)***: Click here to enter text.
 |
| 1. **Justification for Number of Animals Requested**: **(Note: numbers should include animals used for breeding and all animals born)**
 |
| 1. [ ] Pilot study or preliminary project where group variances are unknown at the present time. Describe the information used to estimate how many animals will be needed: (Only a limited number of animals will be permitted.)

***(Explain)***: Click here to enter text. |
| 1. [ ] Group sizes are determined statistically. Describe the statistical analysis used to estimate the number (N) of animals needed: N may be estimated from a power analysis for the most important measurement in the study, usually based on the expected size of the treatment effect, the standard error associated with the measurement, and the desired statistical power (e.g. P < 0.05). Data analysis methods should not be submitted unless directly applicable to the estimate of N.

 *An online calculator may be found at:* <http://www.math.uiowa.edu/~rlenth/Power/>  *or a* *stand-alone calculator that can be downloaded from*  <http://www.psycho.uni-duesseldorf.de/abteilungen/aap/gpower3> ***(Explain)***: Click here to enter text. |
| 1. [ ] Group sizes are based on the quantity of harvested cells or the amount of tissue required for *in vitro* studies. Explain how much tissue is needed based on the number of experiments to be conducted and the amount of tissue you expect to obtain from each animal (e.g., 10g of tissues are needed: Each animal can provide 2g. 10g /2g per animal = 5 animals needed.) ***(Explain)***: Click here to enter text.
 |
| 1. [ ] Teaching or cooperative extension demonstration protocol. Specify the number of students in the class, the student to animal ratio and how that ratio was determined: Animal numbers should be minimized to the fullest extent possible without compromising the quality of the hands-on teaching experience for students or the health and welfare of the animals. ***(Explain)***: Click here to enter text.
 |
| 1. [ ] Study involving feral or wild animals. Animals will be captured and released in an attempt to maximize the sample size within logistical constraints. Describe the process by which you estimate these numbers and estimate the precision needed: ***(Explain)***: Click here to enter text.
 |
| 1. [ ]  Observational, non-manipulative study. Animals will not be captured, their behavior will not be interfered with, and exact animal numbers cannot be predicted: ***(Explain)***: Click here to enter text.
 |
| 1. [ ]  Product testing. The number of animals needed is based on FDA or USDA guidelines. Provide the citation from the regulations, the IND tracking number, or relevant FDA or USDA correspondence: ***(Explain)***: Click here to enter text.
 |
| 1. [ ]  Other. Elaborate, indicating the method used to determine the group size*.* ***(Explain)***: Click here to enter text.
 |
| 1. **Animals Requested:**

|  |  |  |
| --- | --- | --- |
| **Common Name** | **Genus and Species** | **Total Number of Animals for** **Three Years** |
| 1. Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 2. Click here to enter text. | Click here to enter text.  | Click here to enter text. |
| 3. Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 4. Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 5. Click here to enter text. | Click here to enter text. | Click here to enter text.  |

 |
| 1. **Where will animals be obtained and are there any special shipping requirements?** Click here to enter text.

**If these are privately owned animals please attach an owner consent form****Are agricultural animals obtained from a non-traditional source such as poultry from a commercial production company or swine from commercial herd?** [ ]  Yes [ ]  NoIf **yes**, please describe how the animals are tested and determined to be free of diseases which could potentially infect other animals on site, and any special precautions, such as quarantine isolation housing that is required. Click here to enter text. |
| 1. **Transportation:** Transportation of animals must conform to all institutional guidelines/policies and federal regulations (see SOP PRO-017 Live Rodent Transport) Please describe route, methods, and containers used.

Click here to enter text.  |
| 1. **13. Where will animals be housed (or captured for wildlife)?** Click here to enter text.

 **For agricultural animals briefly describe the enclosures.** Click here to enter text. |
| 1. **Will any untreated or non-manipulated animals be humanely euthanized, to obtain tissue, cells, etc.?** [ ]  Yes [ ]  No

 If **Yes,** list types of tissue, etc: Click here to enter text. |
| 1. **Dietary Manipulations** [ ]  Yes [ ]  No

If **Yes,** list and explain (Note: if food or fluid will be restricted, describe method for assessing the health and wellbeing of the animals. Body weights must be recorded at least weekly. Amount earned (if animals work for food or fluid) during testing and amount freely given must be recorded. A scientific justification must be provided for departures from the recommendations of the Guide.) Click here to enter text. |
| 1. **Environmental Stress (e.g. cold, forced exercise, shock) or Prolonged Restraint (greater than 30 minutes in a natural body position or greater than 15 minutes in an unnatural body position** [ ]  Yes [ ]  No

 If **Yes,** list and explain. For prolonged restraint describe how IACUC Policy P-1 Physical Restraint and Prolonged Restraint will be followed Click here to enter text. |
| 1. **Special Study Requirements or Exceptions to Standards:** Please describe any special study requirements such as single housing of the animals, exemption from environmental enrichment, or special caging Click here to enter text.
 |
| **18. Will any animal undergo anesthesia for any reason other than surgery?** [ ]  Yes[ ]  NoIf **Yes**, 1. List Procedures and Reason(s) for using anesthesia: Click here to enter text.
2. Check the type of anesthesia to be used.

 [ ]  Isoflurane [ ]  Injectable **(*For injectable,* c*omplete the following):***

|  |
| --- |
| Drug: Click here to enter text. |
| Dose: Click here to enter text. |
| Route: Click here to enter text. |

 |
| **HAZARDOUS AGENTS****19. Administration of Hazardous Chemicals, Drugs, Toxins, or Nanoparticles**[ ]  Yes CAS#\_\_\_\_\_\_ [ ]  No

|  |
| --- |
| Please describe if there are any metabolites that are known to be hazardous: Click here to enter text. |
| Please describe hazards posed to personnel: Click here to enter text. |
| Methods to control exposure including Personal Protective Equipment to be used: Click here to enter text. |
| Are materials or metabolites excreted/shed? If so, how and for how long? |
| Methods of Disposal of Animals and Bedding: Click here to enter text. |
| Approval received from UD- Environmental Health and Safety? Yes- No- Not applicable. Please attach |

  |
| **20. Administration of radioactive materials** [ ]  Yes [ ]  No1. Type to be used. Include radioisotope(s) and chemical form(s): Click here to enter text.
 |
| 1. Describe the practices and procedures to be followed for minimization of radiation exposure to workers and for the handling and disposal of contaminated materials associated with this study:

*(Include the methods for management of radioactive wastes and monitoring facility for radioactive contamination, if applicable.*)Click here to enter text. |
| 1. Who will be responsible for the daily care of animals containing radioactive materials?

Click here to enter text. |
| 1. Approval received from UD- Environmental Health and Safety? [ ]  Yes [ ]  No [ ]  Pending

Click here to enter text. |
| Please attach a copy of any approvals or provide the approval number.Click here to enter text. |
| **21. Study of Irradiation *in vivo*?**  [ ]  Yes (gamma irradiator? Box4 or x-ray irradiator? Box4)  [ ]  No1. Make, model, and location of irradiator to be used:

Click here to enter text. |
| 1. Approval received from UD- Environmental Health and Safety? [ ]  Yes [ ]  No [ ]  Pending

 Please attach a copy of any approvals or provide the approval number.Click here to enter text. |
| **22. Administration of Biological Agents** (eg microorganisms, recombinant DNA, **HUMAN** serum, tissue, cell lines, etc.) [ ]  Yes [ ]  NoAnimal Biosafety Level [ ]  1 [ ]  2 [ ]  3 [ ]  4Source of Biological Agents: Click here to enter text.

|  |
| --- |
| Describe hazards posed to personnel:Click here to enter text. |
| Methods to control exposure including Personal Protective Equipment to be used:Click here to enter text. |
| Are agents excreted/shed? If so, how and for how long? |
| Methods of Disposal of Animals and Bedding:Click here to enter text. |
| Approval received from UD- Institutional Biosafety Committee, and if required, the UD-Select Agent Committee? [ ]  Yes [ ]  No [ ]  Pending |
| Please attach a copy of any approvals or provide the approval number. Click here to enter text. |

 |
| **23. Will tumor cells, tissue, sera, viral vectors or other biologics of RODENT origin – other than** **those isolated from rodents already housed in the facility – be administered to animals?**[ ]  Yes [ ]  NoIf Yes, this material must be tested for rodent pathogens and test results must be attached (Please contact the Attending Veterinarian for details). |
| **24. Use of Genetically Engineered (GEM, transgenic, knockout) Animals** [ ]  Yes [ ]  NoIf Yes, please describe any anticipated phenotypes that may cause pain or distress and any special care or monitoring that the animals will require.Click here to enter text.Does the proposed work involve creating new genetically modified animals, or involve crossing two genetically modified animals to produce offspring with a new genotype.[ ]  Yes [ ]  NoApproval received from UD- Institutional Biosafety Committee? [ ]  Yes [ ]  No [ ]  Pending [ ]  Exempt (breeding of two lines of genetically-modified rodents is exempt if 1) both parents can be housed under BL1 containment and 2) neither parent strain incorporates more than one half of the genome of an exogenous eukaryotic virus or incorporates a transgene under the control of a gammaretroviral long terminal repeat and 3)the rodent that results from the breeding is not expected to contain more than one half of an exogenous viral genome) Please attach a copy of any approvals or provide the approval number.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Click here to enter text.\_\_\_\_\_\_\_\_\_\_\_ |
| **25. Is it possible that experimental animals or products from experimental animals will be consumed by humans during or following the proposed work?**[ ]  Yes [ ]  No

|  |
| --- |
| Please describe how animals or animal products may enter the food chain: Click here to enter text. |
| Please describe which animals or animal products may enter the food chain: Click here to enter text. |
| Please describe why animals or animal products entering the food chain pose no hazards to human health: Click here to enter text. |
| Please describe when, relative to the duration of the protocol, animals or animal products will enter the food chain (i.e. during the entire protocol, during only portions of the protocol, following completion of the protocol): Click here to enter text. |

 |
|  **Potential Pain and Distress****26. Pain Category:*****(please mark one)***

|  |
| --- |
| **USDA PAIN CATEGORY: *(Note change of categories from previous form)***  |
| **Category** | **Description** |
| [ ]  **B** | Breeding or holding where NO research is conducted |
| [ ]  **C** | Procedure involving momentary or no pain or distress |
| [ ]  **D** | Procedure where pain or distress is alleviated by appropriate means (analgesics, tranquilizers, euthanasia etc.)  |
| [ ]  **E** | Procedure where pain or distress cannot be alleviated, as this would adversely affect the procedures, results or interpretation (Sample example can be found at <https://research.udel.edu/animal-subjects-resources/> under “References / Protocol answer examples) |

 |
| **27. If animals may experience pain or distress, (for example, animal challenge studies using a pathogenic disease agent) please include how they will be monitored, frequency of observation, and potential treatments** (note: for survival surgery procedures this will be described in addendum D and does not need to be repeated here) (Sample answer can be found at <https://research.udel.edu/animal-subjects-resources/> under “References / Protocol answer examples)Click here to enter text. |
| **28. Please describe criteria for when an animal will be euthanized (humane endpoints – possible examples include 20% weight loss, ulceration of subcutaneous tumors, difficulty ambulating, hunched posture);** (Sample answer can be found at <https://research.udel.edu/animal-subjects-resources/> under “References / Protocol answer examples)Click here to enter text. |
| **Alternatives to Pain and Distress****29.** If you have indicated that **animals in your study experience pain or distress (category D or E),** even if it will be fully alleviated, please mark the appropriate check boxes below and fill in the requested information for each item marked. (Note: If the pain category is B or C, please skip to question 30)**You must conduct searches with at least two databases.**I have considered alternatives to the use of animals in my study. Alternatives refer to methods or approaches which result in refinement of procedures which lessen pain and/or distress; reduction in numbers of animals required; or replacement of animals with non-whole-animal systems or replacement of one animal species with another, particularly if the substituted species is non-mammalian or invertebrate. I have used the following methods and sources to search for alternatives: |
| **Note: You may need to do more than one search per database to look for alternatives if there are multiple procedures that may cause pain and/or distress.** |

|  |
| --- |
| **Database Used:** [ ]  **Medline (PubMed)** [ ]  **Agricola** [ ]  **Toxline**  [ ]  **CAB Abstracts** [ ]  **Biosis**  [ ]  **Other *(Specify)***: Click here to enter text. |
| Date of Search: Click here to enter text. |
| Years Covered: Click here to enter text. |
| Keywords Used (must include the word *alternative*): Click here to enter text. |
| Number of Papers Found: Click here to enter text. |
| Discussion of the Relevancy of the Papers Found: Click here to enter text. |

|  |
| --- |
| **Database Used:** [ ]  **Medline (PubMed)** [ ]  **Agricola** [ ]  **Toxline**  [ ]  **CAB Abstracts** [ ]  **Biosis**  [ ]  **Other *(Specify)***: Click here to enter text. |
| Date of Search: Click here to enter text. |
| Years Covered: Click here to enter text. |
| Keywords Used (must include the word *alternative*): Click here to enter text. |
| Number of Papers Found: Click here to enter text. |
| Discussion of the Relevancy of the Papers Found: Click here to enter text. |

|  |
| --- |
| **Unnecessary Duplication of Work*.*****30**. Activities involving animals must not unnecessarily duplicate previous experiments performed by you or others. Provide a written narrative that assures that the activities of this project comply with this requirement and support this assurance by performing a literature search.The search should return, at minimum, the related previous work from your laboratory.**You must conduct searches with at least two databases.** ***(Not Required for Teaching Protocols)*** |
| **Note: You may need to do more than one search per database to look for duplication of work, especially if you are doing more than one experiment.** |

|  |
| --- |
| **Database Used:** [ ]  **Medline** (**PubMed)** [ ]  **Agricola** [ ]  **Toxline**  [ ]  **CAB Abstracts** [ ]  **Biosis**  [ ]  **Other *(Specify)***: Click here to enter text. |
| Date of Search: Click here to enter text. |
| Years Covered: Click here to enter text. |
| Keywords Used: Click here to enter text. |
| Number of Papers Found: Click here to enter text. |
| Discussion of the Relevancy of the Papers Found: Click here to enter text. |

|  |
| --- |
| Database Used: [ ]  **Medline (PubMed)** [ ]  **Agricola** [ ]  **Toxline**  [ ]  **CAB Abstracts** [ ]  **Biosis**  [ ]  **Other *(Specify)***: Click here to enter text. |
| Date of Search: Click here to enter text. |
| Years Covered: Click here to enter text. |
| Keywords Used: Click here to enter text. |
| Number of Papers Found: Click here to enter text. |
| Discussion of the Relevancy of the Papers Found: Click here to enter text. |

|  |
| --- |
| **Disposition of Animals****31. What is the expected disposition of animals at the end of the experiments?**  ***(Check all that apply)***: |
|  [ ]  Euthanized - If an infectious disease studies - carcasses decontaminated by [ ]  incineration  [ ]  composting [ ]  other Click here to enter text. |
| [ ]  Maintained |
| [ ]  Released ***(Wildlife Only)*** |
| [ ]  Other ***(Specify)***:Click here to enter text. |
|  |

|  |
| --- |
| **32. Euthanasia\*** Select methods that will be used in case of emergency and/or at the end of the procedure/experiment. **\*NOTE:** * Methods must be approved by the AVMA or must be scientifically justified.
* A “Primary” and “Secondary” method must be selected (UD Double Kill Policy).
* **If different methods will be used for different groups** of animals, indicate the group after the procedure (e.g., write “Neonates” after Decapitation, “Adults” after CO2, “Terminal Surgery Animals” after Isoflurane Anesthesia Overdose, etc.).
 |
| Please include all names of personnel and qualifications of those who would be performing any **manual method of euthanasia, such as decapitation as either the primary or the secondary method**:

|  |  |
| --- | --- |
| **Name**Click here to enter text. | **Qualifications:**Click here to enter text. |
| **Name**Click here to enter text. | **Qualifications:**Click here to enter text. |

 |
| [ ]  Animals will NOT be under anesthesia when euthanasia is performed. |
| [ ]  Animals will be under anesthesia when euthanasia is performed**. (C*heck drug used below)***: |
| [ ]  Isoflurane |
| [ ]  Injectable **(*Complete the following)***:

|  |
| --- |
| Drug: Click here to enter text. |
| Dose: Click here to enter text. |
| Route: Click here to enter text. |

 |
| **PRIMARY** method(s) of euthanasia  |
|  [ ]  CO2 by compressed gas cylinder ***(Not for animals already under anesthesia or neonates)*** |
|  [ ]  Barbiturate Euthanasia Solution - Injectable ≥150mg/kg **(*Check route below)***: [ ]  IV [ ]  IP [ ]  IC |
|  [ ]  Isoflurane Anesthesia Overdose - Inhalant  |
|  [ ]  Cervical Dislocation ***(acceptable with anesthesia, or for poultry, without anesthesia if personnel are trained)*** |
|  [ ]  Decapitation ***(only under anesthesia or neonates)*** |
|  [ ]  Exsanguination or Perfusion ***(only under anesthesia)*** |
|  [ ]  Incision of Chest Cavity – Bilateral Pneumothorax ***(only under anesthesia)*** |
|  [ ]  Pithing – ***(only under anesthesia)*** ***( amphibians, reptiles only)*** |
|  [ ]  Removal of Vital Organ(s) ***(only under anesthesia) (Check all that apply):*** [ ]  Brain [ ]  Kidneys  [ ]  Heart [ ]  GI Tract [ ]  Liver [ ]  Lungs [ ]  Other Vital Organ(s) – ***(Specify):*** Click here to enter text.   |
|  [ ]  Other Method of Euthanasia: ***(Describe and Scientifically Justify)***:  |
| **SECONDARY** method(s) of euthanasia that will be used to ensure that the animal does not survive: |
|  [ ]  Cervical Dislocation  |
|  [ ]  Decapitation  |
|  [ ]  Exsanguination or Perfusion |
|  [ ]  Incision of Chest Cavity – Bilateral Pneumothorax |
|  [ ]  Barbiturate Euthanasia Solution - Injectable ≥150mg/kg **(*Check route below)***: [ ]  IV [ ]  IP [ ]  IC |
| [ ]  Pithing – Double pithing required ***(fish, amphibians, reptiles only)*** |
| [ ]  Monitor for lack of respiration and heart beat (Agricultural animals only) |
| [ ]  Removal of Vital Organ(s): ***(Check all that apply)***:   [ ]  Brain [ ]  Kidneys  [ ]  Heart [ ]  GI Tract [ ]  Liver [ ]  Lungs [ ]  Other Vital Organ(s) – ***(Specify):*** Click here to enter text.   |
| [ ]  Other Method of Euthanasia: ***(Describe and Scientifically Justify)***: Click here to enter text. |
| **Personnel and Training****33. Personnel involved in Protocol *(Include Principal Investigator):******Status*:** Indicate Prof, Post-Doc, Grad Student, Lab Manager, Research Assistant, Technician, etc. ***Qualifications*:** Include **procedures this person is proficient in performing** on proposed species and the time they have been doing the procedure. **Be specific** (e.g. sub-mandibular bleeding on mice-2yrs, performing castrations on mice and rats-1yr, tail-vein injections on mice-2yrs, etc.) **(If no experience, list who will train.)*****Responsibilities*:** Include **all responsibilities** this person will have with live animals on this protocol, including euthanizing animals.  |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name**Click here to enter text. | **E-mail**Click here to enter text. | **Office phone number**Click here to enter text. | **Home/Cell phone number**Click here to enter text. | **Received IACUC-required training****Yes** [ ]  **No** [ ]  |

 Status: Click here to enter text. Qualifications: Click here to enter text. Responsibilities: Click here to enter text. |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name**Click here to enter text. | **E-mail**Click here to enter text. | **Office phone number**Click here to enter text. | **Home/Cell phone number**Click here to enter text. | **Received IACUC-required training****Yes** [ ]  **No** [ ]  |

 |
|  Status: Click here to enter text. Qualifications: Click here to enter text. Responsibilities: Click here to enter text. |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name**Click here to enter text. | **E-mail**Click here to enter text. | **Office phone number**Click here to enter text. | **Home/Cell phone number**Click here to enter text. | **Received IACUC-required training****Yes** [ ]  **No** [ ]  |

 Status: Click here to enter text. Qualifications: Click here to enter text. Responsibilities: Click here to enter text. |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name**Click here to enter text. | **E-mail**Click here to enter text. | **Office phone number**Click here to enter text. | **Home/Cell phone number**Click here to enter text. | **Received IACUC-required training****Yes** [ ]  **No** [ ]  |

 Status: Click here to enter text. Qualifications: Click here to enter text. Responsibilities: Click here to enter text. |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name**Click here to enter text. | **E-mail**Click here to enter text. | **Office phone number**Click here to enter text. | **Home/Cell phone number**Click here to enter text. | **Received IACUC-required training****Yes** [ ]  **No** [ ]  |

 Status: Click here to enter text. Qualifications: Click here to enter text. Responsibilities: Click here to enter text. |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name**Click here to enter text. | **E-mail**Click here to enter text. | **Office phone number**Click here to enter text. | **Home/Cell phone number**Click here to enter text. | **Received IACUC-required training****Yes** [ ]  **No** [ ]  |

 Status: Click here to enter text. Qualifications: Click here to enter text. Responsibilities: Click here to enter text. |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name**Click here to enter text. | **E-mail**Click here to enter text. | **Office phone number**Click here to enter text. | **Home/Cell phone number**Click here to enter text. | **Received IACUC-required training****Yes** [ ]  **No** [ ]  |

 Status: Click here to enter text. Qualifications: Click here to enter text. Responsibilities:  |