**Institutional Animal Care and Use Committee**

**University Of Vermont**

**213 Waterman Bldg., 85 South Prospect Street**

**Burlington, VT 05405**

**(802) 656-5040**

**ANIMAL USE PROTOCOL REQUIREMENTS**

Sections A-J as well as a Personnel Roster are the minimum required. If applicable, also include sections K-V.

If protocol activities go beyond a six-year period you will be required to complete the latest version of this form. This will ensure that your protocol is up-to-date with all of the appropriate approvals.

**[A. Animal](#AnimalUseProtocolSummary)** **[Use Protocol Summary Form](#AnimalUseProtocolSummary)**

**[B. Pri](#InvestigatorAssurance2)****[ncipal In](#InvestigatorAssurance2)****[ves](#InvestigatorAssurance2)****[tigator's Assurance](#InvestigatorAssurance2)**

[**C. Confirm****ation of Scientific/Instructional Merit Review**](#ScientificMeritReview)

[**D. Protocol Synopsis**](#ProtocolSynopsis)

**[E. Rationale](#Rationale)**

[**F. Grant Comparison**](#fgrant)

**[G. Animal Use Procedures](#AnimalUseProcedures2)**

[**Collection of Cells, Tissues and Organs**](#CollectionOfCells)

[**Hazards**](#Hazards)

[**Behavioral Testing and Restraint**](#BehaviorTestingRestraint)

[**Dietary Modifications**](#DietaryModification)

[**Procedures/ Implants / Surgery**](#ProceduresImplantsSurgery)

**[H. Estimation of Pain, Distress and Suffering](#PainAndDistress)**

[**I.**  **Study Termination / Animal Disposition**](#StudyTermination)

**[J. Animals Brought Into and Taken Outside of the Animal Facility](#AnimalSource2)**

##### Supplemental

If these sections are not applicable, they should be removed from the document.

[**K. Teaching / Training Protocol**](#TeachingTraining) **(D or E level protocols)**

**[L. Prolonged Physical Restraint or Induction of Stress](#ProlongedRestraint)**

[**M. Dietary Modification**](#DietaryModification2)

**[N. Animal Experiments Involving Hazardous Agents](#HarzardousAgents)**

[**O. Animal Anesthesia Information**](#Anesthesia)

[**P. Animal Surgery Information**](#Surgery)

[**Q. Immunization Procedures**](#AntibodyProduction)

1. [**Antibody Production and Collection**](#AntibodyProductionCollection)
2. **Animal Drug Use Page is no longer used**

[**T. Breeding Colony**](#BreedingColony)

[**U. Wildlife or Exotic Species**](#WildlifeExotics)

 [**V. Departures from Animal Welfare Standards**](#Departures)

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**ANIMAL USE PROTOCOL FORM**

|  |
| --- |
| Protocol Number:  |

###### A. ANIMAL USE PROTOCOL SUMMARY

|  |
| --- |
| **A.1. Protocol Title** |
|  |  |
| **A.2. Principal Investigator (PI) and Contact Information** |
|  | PI Name |  | PI Department |  |
| A.2.i. | **Assigned Designee for Protocol Oversight (acts on behalf of PI in his/her absence) (e.g. sabbatical)** *The PI must have a plan for protocol coverage is his/her absence. This can either be a designee as assigned or a plan as outlined below.*  |
|  | Designee Name |  | Email |  |
|  | Or  |  |
|  | Plan for Coverage/Oversight |  |
|  |  |
| A.2.ii. | **Contact Person for IACUC correspondence and inquiries** |
|   | Name |  | Email |  |
|  |  |  |  |  |
| **A.3 Emergency Coverage Contacts****List daily and weekend contact numbers for animal emergencies.** Personnel listed in this section must also be listed as project personnel. |
|  Principal Investigator:  |  | Work # |  |  Home # |  |  |
|  |
| Alternate Person Name:  |  | Work # |   | Home # |  |  |

###### A.4. If PI is a Student, complete this section

|  |  |  |
| --- | --- | --- |
|  | Status (Graduate/Undergraduate) |  |
|  | Faculty Sponsor/Supervisor Name |  |
|  | Sponsor/Supervisor’s Signature |  |  Date  |  |

|  |  |
| --- | --- |
| **A.5. Type of Submission** (Check one) | Provide Related IACUC Numbers |
|  |  | New Protocol | (Not applicable for new protocols) |
|  |  | Response to Review - includes Requested Revisions |  |
|  |  | Amendment of Protocol – includes Revisions |  |
|  |  | Salary Support/Fellowship-related IACUC # |  |
|  |  | Identical to IACUC Protocol # |  |
|  |  | Protocol Form Update (version cannot be older than 6 years) |  |
|  |  | If this update results in a change to the protocol, please submit a completed amendment form for approval. |

|  |
| --- |
| **A.6. Funding Source(s)** If funded internally, complete department /program name here and skip to A.9. |
|  |
| **If Funded by a Grant**PHS Policy (IV.D.) requires the institution to verify, before award, that the IACUC has reviewed and approved those components of grant applications and contract proposals related to the care and use of animals. This position is reiterated in NIH Grants Policy Statement under Part II, Terms and Conditions. This section helps us to identify, if applicable, the grant to which this protocol applies.  |
| A.6.a **Infoed Proposal#** |  |
|  A.6.b **Grant Number** |  |
| A.6.c **Submission Type** |  | **New** |  | **Renewal** (competing continuation) |
| A.6.d **Is this a Just-in-Time Request?** |  | **Yes** |  | **No** | If yes, attach JIT notice. |
| A.6.e **Is this project part of a Program Project Grant** |  | **Yes** |  | **No** |  |
| A.6.f **If yes, list PI on Program Project Grant**  |  |
| **A.7. Project Requested Start Date** |  |  |
| **A.8. Project Requested End Date** |  |  |
| **A.9. Species & Procedures** |
| **If more than four species, add a second Section A.9 to this submission and check here.** |  |
|  |  |
| **Type of Procedure(s)**  |  | Group 1 | Group 2 | Group 3  | Group 4 |
| **List common name across: ⇒** **Check procedures that apply to that group of animals.**  | **⇒** |  |  |  |  |
| **A.** Survival Surgery |  |  |  |  |  |
| **B.** Non-survival Surgery |  |  |  |  |
| **C.** Multiple Survival Surgery |  |  |  |  |
| **D.** Controlled Drugs  |  |  |  |  |
| **E.** Collection of Cells, Tissues, Organs |  |  |  |  |
| **F.** Behavioral Procedures (aversive conditioning, prolonged restraint, induction of stress) |  |  |  |  |
| **G.** Special Diet |  |  |  |  |
| **H.** Food / Water Deprivation  |  |  |  |  |
| **I.** Hazardous Agents (radiological, biological, or chemical) - Include section N. |  |  |  |  |
| **J.** Burns or Trauma |  |  |  |  |
| **K.** Drugs (Other than anesthetics) |  |  |  |  |
| **L.** Immunization Procedures |  |  |  |  |
| **M.** Antibody Production |  |  |  |  |
| **N.** Diagnostic X-rays |  |  |  |  |
| **O.** Anesthesia without surgery (i.e. blood collection, intra-dermal injections) |  |  |  |  |
| **P.** Paralytic Agents |  |  |  |  |
| **Q.** Euthanasia without anesthesia (i.e. cervical dislocation) |  |  |  |  |
| **R.** Breeding |  |  |  |  |
|  Pairs |  |  |  |  |
|  Offspring that are Usable (estimate) |  |  |  |  |
| **Z.** Other (Specify) |  |  |  |  |
|  | **Highest USDA Pain Level (B, C, D, E)**  | **⇒** |  |  |  |  |
|  **Total Number of Animals Requested** | **⇒** |  |  |  |  |
| **\*\*\*Please note that you will be required at the time of continuing review to break down, by USDA pain level, how the animals listed above were used.\*\*\*** |

|  |
| --- |
|  |
| **A.10. Facility and Room # Where Procedures Using Whole Live Animals Will Take Place** (If multiple, indicate)**This information helps to identify inspection areas. New labs require inspection prior to activities.** |
|  | **Non-Surgical Procedures** |  |
|  | **Surgery and/or Anesthesia** |  |
|  | **Euthanasia** |  |
|  | **Behavioral Procedures** |  |
|  | **Drug Box Location (if applicable)** |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **A.11. Proposed Facility for Animal Housing** (Check all that apply) | **Given** | **Colchester** | **Dewey** | **Ungulate** | **HSRF** | **Research Farm** | **Morgan Farm** |
|  |  |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
| **SPECIAL CONDITIONS/SITUATIONS** | YES | NO |
| **A.12. Housing Outside of Facility for More than 12 Hours** (Study Area or Satellite Facility; Complete SECTION J.3) |  |  |
| **A.13. Teaching/ Training Protocol for D & E Pain Levels**  (If YES, Complete SECTION K) |  |  |
| **A.14. Wildlife or Exotic Species** (If YES, Complete SECTION U) |  |  |
| **A.15. Breeding or Holding Colony** (If YES, Complete SECTION T) |  |  |
| A.16. Agricultural Protocol  |  |  |
|  |
| **A.17. Source of animals to be used**  |
|  | Note: Please contact OACM well in advance for animals received from other Universities. |
|  |
|  | OACM -Approved Commercial Vendor |  |  |
|  | Spear St. Farm |  |  |
|  | Morgan Horse Farm |  |  |
|  | UVM Breeding Colony |  | Indicate IACUC# and PI |  |
|  | Another University or Vendor |  | Indicate Source |  |
|  |

|  |
| --- |
| **A.18. Analgesic/Anesthetic/Sedative/Tranquilizer** |
| Refer to Sections O.1 and P.8.a. |

|  |
| --- |
| **A.19. Euthanasia Method/Agent**  |
| Refer to Section I.2.a. |
| **A.20. If the University Veterinarian will not be providing animal care for the animals, enter the name, address and phone number of the contracted Veterinarian who will provide care.** Attach contract or memorandum of understanding signed by the Veterinarian. |
|  |  |

###### A.21. PERSONNEL ROSTER

**PLEASE DO NOT INCLUDE INDIVIDUALS WHO HAVE NOT COMPLETED THE REQUIRED TRAINING AND SUBMITTED THE REQUIRED OCCUPATIONAL HEALTH FORMS.** All key personnel are required to complete the IACUC General Animal Training and individual species trainings specific to the protocol through CITI. Please visit the [CITI Resource Page](https://www.uvm.edu/rpo/citi-program-training) for more information. To view training completions click [here.](https://www.uvm.edu/iacuc/education/training/tutorial_completion.html)

|  |  |
| --- | --- |
| **Personnel Name** | **Email Address** |
|
| PI: |  |
| Designee: |  |
| Contact for IACUC: |  |
| Emergency Contact for OACM: |  |
|  |  |
|  |  |
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| **B. INVESTIGATOR ASSURANCE** |

I have provided an accurate description of the proposed animal use in this protocol document. If the procedures concerning animal use in this project are to be changed, I will obtain approval from the IACUC before the changes are implemented. I understand that failure to do this may place both me and the University in violation of federal regulations and the Animal Welfare Act.

In addition to the above, I agree to the following conditions;

* Correct procedures for animal handling and restraint, administration of anesthetics and analgesics, and AVMA recommended methods of euthanasia are used in this project.
* All experiments involving live animals will be performed only by the qualified individuals indicated in the personnel roster.
* Personnel involved in this project have been or will be adequately trained prior to any animal work and will be given the opportunity to participate in the University’s Occupational Health Program for individuals working with animals in research or teaching.
* Veterinary care is provided promptly to any animals showing unanticipated signs of pain or distress.
* I will make animal tissue available for sharing, or use tissues shared from other protocols whenever possible.

I agree to abide by the U.S. Public Health Service Policy, the Animal Welfare Act and University policies concerning the use of animals. As required by Federal regulations, I confirm that the activities described herein do not unnecessarily duplicate previous experiments, and that the animal models proposed are the most appropriate for achieving the objectives of this project.

All personnel will be informed that any concerns about the humane care and treatment of animals or unlawful acts involving animals must be reported to the IACUC Chair, the University Veterinarian, the Research Protections Office, or to the Institutional Official using the EthicsPoint™ website (<https://secure.ethicspoint.com/domain/media/en/gui/24544/>). Any individual reporting such concerns cannot be discriminated against or subjected to any reprisal.

Principal Investigator \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

University Veterinarian \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |
| --- |
| **C. CONFIRMATION OF SCIENTIFIC/INSTRUCTIONAL MERIT REVIEW** |
|  | **Before any project utilizing animals can be initiated, it must be reviewed and approved based on scientific or instructional merit. The materials that require review are either the grant proposal or when there is no grant, Section D.4. of this Animal Use Protocol.** |
|  | **Indicate the Applicable Review Process.** (Check all that apply.) |
|  |
|  | **C.1 External Review:** Peer‑reviewed outside the University of Vermont (e.g. NIH, NSF, AHA, etc.)  |
|  |
|  | Name of External Review Agency |
|  |   |
|  |  |
|  |  | This project will be initiated only after external peer review and approval | **Award Date** |  |
|  |  |
|  |  | This project will be initiated prior to external peer reviewand approval (complete C.2.a or C.2.b.) |
|  |
|  |
|  | **C.2 Internal Review:**  |
|  |  |
|  | **C.2.a Internal Review Committee Name:** A formal review must take place by a UVM Internal Committee. Section D.4. of this Animal Use Protocol or the submitted grant must be examined as part of the review. |
|  |
|  |  |
|  |
|  | Name and title of Committee Official |  |
|  |  |  |
|  | **\*Signature** |  | **Approval Date** |  |
|
|  |
| **OR** |
|  |
|  |
|  |  **C.2.b Independent Scientific Review:**  Two knowledgeable faculty members must independently examine Section D.4. of this Animal Use Protocol or the submitted grant. |
|  |
| Reviewers Names and Titles | \*Reviewer Signature and Date |
|  |  |  |  |
|  |  |  |  |

\* Signature indicates assurance of scientific and/or instructional merit.

|  |
| --- |
| **D. PROTOCOL SYNOPSIS (grant and non-grant proposals)** |
|  |
| Provide a brief non‑technical description of the research or teaching project, **emphasizing the use of animals**. Include individual strains of animal in this summary. |
| **D.1 Provide a brief paragraph stating the goals of the research.** This should generally be no more than a few sentences. Do not include background, hypotheses or specific aims. |
|  |
| **D.2 Provide a list of all procedures to be used on animals.** Include sufficient detail to convey a clear sense of what will actually happen to the animal. |
|  |
| **D.3 Provide a table of animal groups and numbers.** Provide a table showing how your study is constructed in terms of its various treatment groups and numbers of animals within each group. Calculate and list the total number of animals of each species to be used. The numbers of animals **must agree** with those listed in sections A.9. |
|  |  |
| **Complete the following section for Protocols that do not have accompanying grant proposals.**  |
| **D.4 Provide Specific Research Plan and References** Plan should include background, hypotheses, specific aims. Please limit the research plan to no more than 2 pages, including the references. |
|  |  |

|  |
| --- |
| **E. RATIONALE** |
|  |
| According to federal regulation (9CFR 2.31(e)(2), a proposal to conduct research or teaching utilizing animals **"must contain... a rationale for involving animals."** The regulations of the Animal Welfare Act (9 CFR 2.31(3) (2)) and University policy requires that animals selected for a procedure should be of an appropriate species. The minimum number required to obtain valid results should be used. |
| **E.1 State why whole live animals are required for this project, rather than alternatives such as cultured cells or computer models.** |
|  |  |
|  |
| **E.2 Include a brief explanation of the efforts you have made to minimize the number of animals needed for this project.** |
|  |  |
|  |
| **E.3 State the potential significance of the activities involving animal use.** This should generally be no more than a sentence or two, and should explain how the results of the proposed experiments will be useful or important. |
|  |  |
|  |
| **E.4 List each species to be studied and discuss its appropriateness as a research or teaching model.** State if the species is predetermined, for example by the granting agency or by course requirements. |
|  |  |
| **E.5 Appropriateness of the NUMBER of animals to be used.**  Whenever possible, the number of animals and experimental group sizes should be statistically justified (page 25 Guide). Which of the following approaches was used to estimate the group size for proposed studies? Different aims/studies within a protocol may have different justifications. Check all appropriate boxes.  |
|  |
| E.5.a |  | Group size determined by use of statistical method/formula/program |
|  |  | Describe statistical method/formula/program, and the p value being used to determine significance. Justify any replicates. |
|  |  |  |
| E.5.b |  | Group size determined by reference to a similar study, with the same study measures/outcomes, where a statistically meaningful result was obtained |
|  |  | Cite the reference. |
|  |  |  |
| E.5.c |  | Group size determined by reference to your similar unpublished study/previous work |
|  |  | Provide a brief overview of the study and the data and whether statistical significance was achieved. Do not state “in my experience”, or similar, as the sole justification. Use a published study where possible. |
|  |  |  |
| E.5.d |  | Pilot study to determine study feasibility or proof of concept |
|  |  | Cite the reference. |
|  |  |  |

**F. GRANT COMPARISON**

|  |  |  |  |
| --- | --- | --- | --- |
| **F.1. Are all the animal use procedures the same as what is in the corresponding grant?** | YES | NO | NA |
|  | **If NO, provide explanation.** |  |  |  |
|  |  |

|  |
| --- |
| **G. ANIMAL USE PROCEDURES** |
|  |
| **COLLECTION OF CELLS, TISSUES AND ORGANS** |
|  | YES | NO |
| **G.1 Blood sampling**  (If YES, complete the following)  |  |  |
|  | G.1.a | Technique |  |
|  | G.1.b | Site |  |
|  | G.1.c | Volume/sample |  |
|  | G.1.d | Frequency  |  |
|  |
|  | YES | NO |
| **G.2 Urine, feces or other body fluids sampling** (If YES, complete the following) |  |  |
|  | G.2.a | Material |  |
|  | G.2.b | Method |  |
|  | G.2.c | Frequency  |  |
|  | G.2.d | Duration |  |
|  |
|  | YES | NO |
| **G.3 Collection of tissues (except blood) BEFORE euthanasia** (If YES, complete the following) |  |  |
|  | G.3.a | Tissues Collected |  |
|  |  |  |
|  | YES | NO |
| **G.4 Collection of tissues (except blood) AFTER euthanasia** (If YES, complete the following) |  |  |
|  | G.4.a | Tissues Collected |  |

|  |  |
| --- | --- |
|  | **All unused tissues should be double-bagged and returned to the animal facility for incineration** |

|  |
| --- |
|  **BEHAVIORAL TESTING and RESTRAINT**If you are conducting behavioral procedures, please make sure you have provided the location of these activities in A.10. |
|  | YES | NO |
| **G.5 Behavioral testing WITHOUT significant restraint or noxious stimuli** (If YES, describe) |  |  |
|  |  |
|  (See Research Manual for Vertebrate Animals for definition of significant restraint.) |
|  |
|  | YES | NO |
| **G.6 Behavioral testing WITH significant restraint or noxious stimuli** (If YES, complete |  |  |
|  |  SECTION L) |
|  | YES | NO |
| G.7 Prolonged restraint (If YES, complete SECTION L) |  |  |
|  |

|  |
| --- |
| **DIETARY MODIFICATION** |
|  | YES | NO |
| **G.8 Special Diets or Food/Water Restriction** (If YES, complete SECTION M) |  |  |
|  (Note: this does not include drugs delivered via food or drink) |
|  |

|  |
| --- |
| **PROCEDURES/IMPLANTS/SURGERY** |
|  | YES | NO |
| **G.9 Antibody production** (If YES, complete SECTION Q) |  |  |
|  |  |
|  **G.10 *In Vivo* Administration of agents other than anesthetics, analgesics or sedatives** If yes, complete below. |
|  |
| Agents | Available in Pharmaceutical Grade\*\*Yes/No | Dose (mg/kg) |  Max Volume  |  Route | Frequency | Side Effects |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| \*\*If the drug is available in pharmaceutical grade but you will not use the pharmaceutical grade, then complete section V.3. |
|  | YES | NO |
| **G.11 Indwelling catheters or implants** (If YES, complete the following) |  |  |
|  | G.11.a | Size  |  |
|  | G.11.b | Type and site |  |
|  | G.11.c | Maintenance  |  |
|  | G.11.d | Duration  |  |
|  | YES | NO |
| **G.12 Tumor Transplantation or Cell Inoculation** (If YES, complete the following) |  |  |
|  |  |  |  |
|  | G.12.a Tumors/cells derived from Humans may potentially carry disease that could infect caretakers/technicians. If so, this becomes a biohazard issue and Section (N) should be completed. Does this protocol involve Human-derived tissues or cells? | YES | NO |
|  |  |
|  |  |  |  |
|  | G.12.b Tumors/cells derived from rodents are potential sources of rodent viruses that could spread throughout animal facilities. Does this protocol involve Rodent-derived tissues or cells? | YES | NO |
|  |  |
|  | G.12.c Have you had the tumor/cell line tested for infectious viruses? (Contact the Office of Animal Care for additional information.) | YES | NO |
|  |  |
|  |
|  | G.12.d | Tumor or Cell Type |  |
|  | G.12.e | Route of Administration |  |
|  | G.12.f | Frequency of Administration |  |
|  | G.12.g | Anticipated functional deficit  |  |
|  | G.12.h | Treatment  |  |
|  | G.12.i | Monitoring plan |  |
|  | G.12.j | End Point  |  |
|  | YES | NO |
| **G.13 Non‑survival surgery** (If YES, complete SECTION O and SECTION P) |  |  |
| **G.14 Single survival surgery** (If YES, complete SECTION O and SECTION P) |  |  |
| **G.15 Multiple major survival surgeries** (If YES, complete SECTION O and SECTION P) |  |  |
| **G.16 Other** **Non-Surgical Procedures** (If YES, explain below) |  |  |
|  |  |
|  |
| **POST‑PROCEDURE CARE** |
|  | YES | NO |
| **G.17 Will post‑procedure care for non-surgical procedures listed above be required?** (If YES, complete the following) |  |  |
|  |  |
|  | G.17.a | Who will provide care? |  |
|  | G.17.b | What post‑procedure care is required? |  |
|  | G.17.c | When will post‑procedure care be given? |  |
|  | G.17.d | What analgesics will be given? (If none, explain) |  |
|  | G.17.e | What will be the endpoint? |  |

**H. ESTIMATION OF PAIN, DISTRESS AND SUFFERING**

|  |
| --- |
|  |
| Federal law requires that the Principal Investigator consider alternatives to procedures that may cause more than momentary or slight pain or distress to animals.**A written narrative description of the methods and sources** (e.g. The Animal Welfare Information Center) **used to determine that alternatives were not available** **is required** (Federal Regulations, 9 CFR Ch. 1, Sec. 2.31(d)(1)(ii)). |
|  |
|  | YES | NO |
| **H.1 Does this project involve procedures that have the potential to cause more than momentary or slight pain or distress to animals?** *(If yes, you must conduct a literature search that examines alternatives to procedures that cause more than momentary or slight pain or distress.)* |  |  |
|  |
|  | H.1.a | State why the literature search results led you to believe there are no alternatives to procedures that may cause more than momentary or slight pain or distress to animals. List the number of internet hits obtained, and briefly describe any identified alternatives not suitable for the objectives of this study. |
|
|  |  |
|  | H.1.b | Date the Database Search was done |  |
|  | H.1.c | Database(s) searched (e.g. Medline) |  |
|  | H.1.d | Date range of the Database Search *(use the most inclusive time range)*  |  |
|  | H.1.e | Key words used in the search *(must include species and procedures)* |  |
|  | H.1.f | Describe how the relevant literature is archived (check all that apply) |  | Hard copies |  | Other list below |
|  | Electronic copies |  |  |
| **H.2 What pain or distress is anticipated?** (Be explicit, and include **potential** for pain or distress even if the animals are under anesthesia) |
|  |  |
|  |
| The PI, the project personnel and the Office of Animal Care and Management observe for the following signs of pain or distress:  |
| Loss of appetiteLoss of weightLoss of mobilityGuarding (protecting the painful area) Vocalizing Licking, biting, scratching or shaking a particular area | RestlessnessFailure to groom, causing an unkempt appearanceTeeth grindingAbnormal resting postures in which the animal appears to be sleeping or is hunched upFailure to show normal patterns of inquisitiveness  |
|  | YES | NO |
| **H.3 Are there other signs that will be used to assess pain and distress?**  If YES, explain below. |  |  |
|  |  |
|  |

|  |  |  |
| --- | --- | --- |
|  | YES | NO |
| **H.4 Does this protocol include procedures that are potentially more than momentarily painful or distressful?** If Yes, then special observation is generally necessary. ( If yes, complete the following)  |  |  |
|  |  |
|  | H.4.a | Frequency of observation |  |
|  | H.4.b | Beginning (date or condition) |  |
|  | H.4.c | Ending (date or condition)  |  |
|  | YES | NO |
| **H.5 Will there be unalleviated pain or distress in this protocol?** |  |  |
|  | If YES, this protocol falls into the USDA pain level E. Please supply the scientific justification why animals on  |  |
|  | this protocol will be subjected to unalleviated pain or distress and enter USDA code E in Section A-9 next to appropriate species. |
|  |  |
|  |
| **H.6 The University Veterinarian MUST be notified if UNANTICIPATED pain, distress, or suffering occurs.** If there is a legitimate reason that this cannot be done, indicate below. |
|  |  |

|  |
| --- |
| I. STUDY TERMINATION/ANIMAL DISPOSITION |
|  |
| There are three possible outcomes for an animal assigned to a protocol:1. Absolutely no harm to the animal will occur, and the animal will be available for redistribution *(please refer to UVM’s* [*Reuse of Animals policy*](http://www.uvm.edu/~iacuc/education/research%20manual/Re-use%20of%20animals.docx)*)*2. The animal will be euthanized at the end of the research3. The animal will be in the experiment until it expires (commonly referred to as “death is the endpoint”) |
|  | YES | NO |
| **I.1 Will any animal(s) survive the research with no harm?**  |  |  |
|  |  |
|  | YES | NO |
|  | **I.1.a Will any animal(s) be used in another protocol?**  |  |  |
|  | (If YES, indicate protocol # and PI; for Agricultural animals leave Protocol # and PI blank) |
|  | Protocol # |  |  PI  |  |  |
|  |
|  | YES | NO |
|  | **I.1.b Will any animal(s) be adopted?** |  |  |
|  | (If YES, contact the University Veterinarian to make arrangements.) |
|  | YES | NO |
| **I.2 Will any animal(s) be euthanized?**  |  |  |
|  |  |  |
| **I.2.a Euthanasia Method/Agent** Note: A physical method of euthanasia should be used in conjunction with drugs. |
|  **Method/Agent** (Generic Name) **Species Dose (mg/kg) Route**  |
|  |   |  |   |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  | YES | NO |
| **I.2.b Will “conditionally acceptable” methods of euthanasia be used?**  |  |  |
| If Yes, (which would include any “physical method” without prior anesthesia) that method must be justified below, as required by the [2013 AVMA Panel on Euthanasia.](https://www.avma.org/kb/policies/documents/euthanasia.pdf) |
|  |

|  |  |  |
| --- | --- | --- |
|  | YES | NO |
| **I.3 Will death be the endpoint for any animal(s) in this protocol?** (For example, heart failure is induced in a rabbit and it is allowed to survive until it dies of congestive heart failure without being euthanized) (If YES, complete the following) |  |  |
|  |
|  | YES | NO |
|  | I.3.a Will euthanasia ever be considered or is there any other measurable endpoint at which  |  |  |
|  | euthanasia will be performed? (Please explain below.) |
|  | If YES, this may not be death as an endpoint; ONLY COMPLETE SECTIONS I.3.a – I.3.f IF “YES”) |
|  |  |
|  |
|  | I.3.b If euthanasia will never be considered, justify why death is the end point rather than euthanasia  |
|  |  |
|  |
|  | I.3.c What signs are the animals expected to exhibit as they go through the terminal stages? |
|  |  |
|  |
|  | I.3.d What measures can be taken to alleviate pain (e.g. analgesics)? (If NONE, please justify otherwise complete section A.18) |
|  |  |
|  |
|  | I.3.e Who will observe the animal during the terminal stages? |
|  |  |
|  |
|  | I.3.f What will be the frequency of observation? |
|  |  |
|  |
|  |
| **ANIMAL DISPOSITION** |
| **I.4 Instructions for disposition of sick or injured animals.**  |
|  |  | YES | NO |
|  | I.4.a | Call Investigator Immediately?  |  |  |
|  | I.4.b | Call Investigator next working day? |  |  |
|  | I.4.c | In case of emergency, should the Veterinarian treat the animals? |  |  |
|  |  If NO, justify below why animals will not be treated (also see section H).  If YES, explain below any restrictions on treatment. |
|
|  |  |
|  |
| **I.5 Instructions for disposition of dead animals.** |
|  | Dead animals found by caretakers will be bagged for disposal, frozen, and investigators will be notified as per instructions below. If you need the animal’s carcass, or implanted instrumentation saved by the caretaker, please indicate below. Please contact appropriate departments for disposal of hazardous or radioactive animals or tissues. Agricultural animals will normally be composted, nonetheless, please complete the following. |
|  |
|  | YES  | NO |
|  | I.5.a | Call Investigator Immediately?  |  |  |
|  | I.5.b | Call Investigator next working day? |  |  |
|  | I.5.c | Do you specifically request the Veterinarian to do a necropsy? |  |  |
|  |  |
|  |  | YES | NO |
|  | I.5.d | Refrigerate carcass rather than freezing. |  |  |
|  | I.5.e | Other (Explain) |  |  |
|  |  |
|  |

|  |
| --- |
| J. ANIMALS BROUGHT INTO AND TAKEN OUTSIDE OF THE ANIMAL FACILITY |
|  |
| **ANIMALS BROUGHT INTO THE FACILITY** |
|  |
| **Approved Vendors Quarantine** | Animals ordered from approved, conventional vendors will enter quarantine as described in OACM SOP’s. During the quarantine period, animals will not be for research use without specific approval from the Office of Animal Care Management. |
|  |
| **Non-Conventional Vendor Quarantine** | Animals can only be ordered from other Universities or non-approved vendors after completion of special animal request forms and receipt of animal health information from the vendor or source. These animals will undergo an extended quarantine period and may be health tested at the cost of the investigator. Contact OACM for more information. |
|  |
| **Animal Stabilization** | To reduce the impact of stress-induced elevation of hormones on your research, all animals require a period of stabilization after transport to the University of Vermont. Stabilization occurs during the quarantine period. Literature suggests the following guidelines: |
|  | Rodents and Rabbits | 3 days |
|  | Dogs, Pigs, Other Mammals | 5-7 days |
|  |
| Agricultural Animals | If animals are currently being housed at the Spear Street Farm, no additional stabilization is necessary. If animals will be purchased or moved to the farm from another source, contact the University Veterinarian and/or Farm Manager for additional instruction. |
|  |
|  | YES | NO |
| **J.1 Do you wish approval for a stabilization period other than those listed above?** |  |  |
|  | Please list your request for the length of the stabilization period |  |
|  |
| **ANIMALS TO BE TAKEN OUTSIDE OF THE FACILITY** |
|  | YES | NO |
| **J.2 Will animals be used in a laboratory outside the animal facility or farm grounds for less than 12 hours?**  (If YES, complete the following) |  |  |
|
|  |
|  | J.2.a | Building |  | Room  |  |
|  | J.2.b | Approximate duration in laboratory |
|  |  |
|  | J.2.c | How many times will the animals be transported to the laboratory?  |
|  |  |  |  |
|  |
|  | To ensure legal and safe transportation of animals, the following guidelines MUST be followed:  |
|  | If moved within the building, animals must be transported in a filter top cage with opaque cover in designated elevators. |
|  | If moved between buildings, animals must be transported in an opaque bin or other transport container. |
|  | J.2.d | Other (Please describe.) |  |
|  |

|  |
| --- |
| **J.3 STUDY AREAS AND SATELLITE FACILITIES**  |
|  |
| **Definitions:****Study Area:** “Study area is defined as any building room, area, enclosure or other containment outside of a core facility or centrally designated or managed area in which animals are housed for 12-24 hours”. 9CFR Chapter 1§ 1.1**Satellite Facility:** “A satellite facility is any containment outside of a core facility or centrally designated or managed area in which animals are housed for more than 24 hours.” *- Public Health Service Policy on Humane Care and Use of Laboratory Animals* Use of these areas require special justification, special animal monitoring procedures and must be inspected and approved by the IACUC prior to animal housing, and are subject to ongoing inspection by the IACUC and federal authorities. See the IACUC policy [Housing Animals Outside of and/or Removal of Animals From the Central Animal Facility.](http://www.uvm.edu/~iacuc/education/research%20manual/researchmanual.html#_Toc506206423) |
|  |
| **Will animals be used or housed in either a STUDY AREA OR SATELLITE FACILITY** (If a satellite facility or study area will be used, complete the following) | **sTUDY AREA** |  |
| **Satellite Facility** |  |
| **N/A** |  |
|  |  |  |
|  |
|  | J.3.a | Justification |  |
|  |
|  | J.3.b | Building |  | Room |  |  |
|  |
|  | J.3.c | Approximate duration in laboratory |  |  |
|  |
|  | J.3.d | How many times will the animals be transported to the study area or satellite facility?  |  |  |
|  |
|  | J.3.e | Who will provide the husbandry? |  |
|  |
|  | To ensure legal and safe transportation of animals, the following guidelines MUST be followed:  |
|  | If moved within the building, animals must be transported in a filter top cage with opaque cover in designated elevators. |
|  |  If moved between buildings, animals must be transported in an opaque bin or other transport container. |
|  | J.3.f | Other (describe) |  |
|  |

You have now completed the main portion of the Animal Care and Use Protocol!

Any section beyond this page must be submitted only if required for your specific protocol. Sections that are not completed should be discarded prior to submission.

|  |
| --- |
| 1. **TEACHING/TRAINING PROTOCOL**

**Complete only if applicable to your project** (e.g. Protocol is primarily or solely used for teaching purposes when pain category is greater than C, which include procedures that cause more than momentary pain or distress. When pain category is C or less, the Teaching Protocol Form may apply). If section K is not needed, please remove from the packet. Check all that apply. Note that all individuals that will be involved with the animals are required to receive training applicable to their responsibilities. If possible, submit a list of the undergraduate students that will be involved in the protocol. Contact the Office of Animal Care Management to schedule training. |
|  |
|  |
|  |  | Undergraduate students |
|  |  | Graduate students, Fellows and Residents |
|  |  | Continuing education students (MD) |
|  |  | Psychology Course # |  |  |
|  |  | Zoology/Biology Course # |  |  |
|  |  | Animal Science Course # |  |  |
|  |  | Only dead animals or tissues obtained through euthanasia by the PI |
|  |  | Surgery (fill out Sections O and P) |
|  |  | Demonstration only by PI |
|  |  | Student involvement – live animal observation and handling |
|  |  | Student involvement – exposure to research |
|  |  | Student involvement – gain skills, more than just handling (Explain below) |
|  |  |
|  |  |
|  |  | Other (Explain below) |
|  |  |

|  |
| --- |
| **L. PROLONGED PHYSICAL RESTRAINT OR INDUCTION OF STRESS** |
|  |
| **Complete only if applicable to your project.** If not, please remove from the packet. Brief physical restraint or induction of stress in animals for examination, collection of samples, and a variety of other clinical and experimental manipulations can be accomplished manually or with devices such as restraint stocks or squeeze cages. It is important that such devices be suitable in size and design for the animal. The devices must be operated properly to minimize stress and avoid injury to the animal. **Prolonged restraint** or induction of stress in any animal, including the chairing of non‑human primates, should be avoided unless essential to the research objectives. |
|  |
| **L.1 Describe the procedures.** |
|  |  |
|  |
| **L.2 Explain the rationale for use of restraint or induction of stress.** |
|  |  |
|  |
| **L.3 Describe the device and include dimensions or other specific features. Include pictures or diagrams if available** (May be attached separately). |
|  |  |
|  |
| **L.4 State the duration the animal will be confined to the device each time.** |
|  |  |
|  |
| **L.5 State the frequency animal will be confined to the device.** |
|  |  |
|  |
| **L.6 State the observation intervals during confinement.** |
|  |  |
|  |
| **L.7 Qualified faculty or staff making the observations** (Must be included as project personnel) |
|  | Name |  | Phone |  |
|  |
|  | YES | NO |
| **L.8 Will pain or discomfort be induced?** (If YES, describe below and complete SECTION H) |  |  |
|  |
|  |  |
|  | YES | NO |
| L.9 Will electrical or other forms of stimulation, including light and sound, be used to modify animal behavior (If Yes, describe below).  |  |  |
|  |  |
|  |
|  | YES | NO |
| **L.10 Will analgesics, sedatives or tranquilizers be used to provide additional restraint?** (If YES, explain below and complete Section A18.)  |  |  |
|
|  |  |
|  |

|  |
| --- |
| M. DIETARY MODIFICATIONS |
|  |
|  | **Complete only if applicable to your project.** (If not, please remove from the packet.) |
|  YES NO |
| **M.1 Will food be withheld for 24 hours or water for 12 hours, or will the diet be deficient or excessive in one or more nutrients?**  |  |  |
|
|  | YES | NO |
|  | M.1.a | Food Withheld (Does not apply to fasting prior to surgery) |  |  |
|  | M.1.b | Length of time withheld |  |
|  | YES | NO |
|  | M.1.c | Water Withheld |  |  |
|  | M.1.d | Length of time withheld |  |
|  | YES | NO |
|  | M.1.e | Dietary Modification (Addition or deletion of ingredient) |  |  |
|  | M.1.f | Ingredient(s) Added |  |
|  | M.1.g | Ingredient(s) Deleted |  |
|  | M.1.h | How long will the diet be used? |  |
|  |  |  |
|  | M.1.i | Please justify the need for the Dietary Changes and describe the expected effect of the Dietary Changes. |
|  |  |
|  |
|  | M.1.j | How will the general well‑being of the animal be determined? |
|  |  |
|  |
|  | M.1.k | How often will the animal be weighed? |  |
|  |
|  | M.1.l | Generally, animals that acutely lose more than 20% of their body weight (compared to matched controls and/or normal anticipated growth curve) should be eliminated from the study (euthanized) or placed back on a normal diet. If this is not acceptable for this project, please address and justify alternatives below. |
|
|
|  |  |
|  |
|  | M.1.m | If there are prolonged weight losses greater than 30% (taking into account the normal anticipated growth for that animal), the deprivation must be terminated or the animal must be euthanized if weight loss continues beyond 30%. If this is not acceptable for this project, please address and justify alternatives below. |
|  |  |  |
|  |  |  |
|  | M.1.n | Describe the procedures to achieve the protocol-specified maintenance weight. |
|  |  |  |

|  |
| --- |
| **N. ANIMAL EXPERIMENTS INVOLVING HAZARDOUS MATERIALS** |
|  |
| **Complete only if applicable to your project.** If not, please remove from the packet. This section is for applications using hazardous agents IN VIVO such as radioisotopes, infectious agents, carcinogens or toxic chemicals. Because many of the questions are “agent-specific”, unless toxicity/treatment/etc. are the same, please duplicate this form for each agent.  |
|  |
| **N.1 Study Involves\*:** check all that apply |
|  |  | **Radioisotopes/Radiation****If yes,** research is subject to a separate review by UVM’s [Radiation Safety Committee.](http://www.uvm.edu/~radsafe/?Page=rso.personnel.html)  |
|  |
|  |  | **Date Submitted:**  |  | **Date of Approval if known** |  |  |
|  |  |  |  |  |  |  |
|  |  | **Human-Derived Materials** |
|  |  | **List type** |  |  |
|  |  |  |  |  |
|  |  | **Infectious/potentially infectious agents (pathogenic to human or animal)** **If yes,** research is subject to a separate review by the [Institutional Biosafety Committee](http://www.uvm.edu/~ibc/?Page=m1_forms.html). |
|  |
|  |  | **List agent** |  | *(If in vivo use, also include in G.6)* |
|  |  | **Date Submitted:** |  | **IBC File Number if known** |  |  |
|  |  |  |
|  |  | **Biotoxins****If yes,** the use is subject to a separate review by the [Institutional Biosafety Committee](http://www.uvm.edu/~ibc/?Page=m1_forms.html). |
|  |
|  |  | **List type** |  |
|  |  | **Date Submitted:** |  | **IBC File Number if known** |  |  |
|  |  |  |  |  |  |  |
|  |  | **Recombinant/non-Recombinant DNA/RNA and/or Synthetic Nucleic Acids****If yes,** research is subject to a separate review by the [Institutional Biosafety Committee](http://www.uvm.edu/~ibc/?Page=m1_forms.html). |
|  |
|  |  | **List** |  |
|  |  | **Date Submitted:**  |  | **IBC File Number if known** |  |  |
|  |  |  |  |  |  |  |
|  |  | **Known or Suspected Hazardous Chemicals and/or Hazardous Drugs (e.g. toxic chemicals, chemical carcinogens or mutagens, chemotherapeutics, etc.)** |
|  |
|  |  | **List chemical or drug** |  |  |
|  |  |  |  |  |
|  |  | **Other (Describe)** |  |
|  |
| **\*NOTE: Approval of the animal protocol will be held until all other required reviews, as noted above, are complete and documented.**  |
|  | YES | NO | NA |
| **N.2 Are there risks to humans?**  (If YES, complete the following) |  |  |  |
|  |
|  | N.2.a  | Route of exposure |  |  |  |
|  | N.2.b | Signs/Symptoms |  |  |  |
|  | N.2.c  | Treatment |  |  |  |
|  | N.2.d  | Protection (Personal Protective Devices) |  |  |  |
|  | YES | NO |
| **N.3 Are there risks to other animals?**  (If YES, complete the following) |  |  |
|  |  |
|  | N.3.a  | Route of exposure |  |  |  |
|  | N.3.b  | Signs/Symptoms |  |  |  |
|  | N.3.c  | Treatment |  |  |  |
|  | N.3.d  | Protection (Personal Protective Devices) |  |  |  |
|  | YES | NO |
| **N.4 Is there special animal care required relating to the use of hazardous materials?**  **(e.g., use of goldenrod card)** |  |  |
|  |  |
|  | (If YES, please describe) |
|  |  |
|  |
|  |
|  | YES | NO |
| **N.5 Are there special containment facility requirements?** (If YES, select below) |  |  |
|  |
|  | N.5.a | ABSL-2 work |  |  |
|  | N.5.b | Use of biosafety cabinet |  |  |
|  | N.5.c | Use of chemical/fume hoods |  |  |
|  | N.5.d | Use of isolator |  |  |
|  | N.5.e | Other Containment Requirements (Describe below) |  |  |
|  |  |  |
| **N.6** Describe experimental procedures involving hazardous agents |
|  |
|  | YES | NO |
| **N.7 Will hazardous waste (chemical, biological, radiological) be generated?** (If YES, describe methods below) |  |  |
|  |

**Please contact the Office of Animal Care Management about the completion of a Hazard SOP for caretakers and technicians.**

|  |
| --- |
| O. ANIMAL ANESTHESIA INFORMATION |
|  |
| **Complete only if applicable to your project.** If not, please remove from packet. |
|  |
| Be sure that the individual(s) who will administer anesthesia, perform surgery, or monitor recovery have been appropriately trained and are noted in Section (A.3.). In addition, there MUST be a trained person monitoring the animal at ALL times while the animal is under anesthesia. |
|  |
| **O.1** | **List the drug(s) that will be used for balanced anesthesia.**   |
|  |
|  | Generic Name | Dose (mg/kg) | Route | Frequency | Duration |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |
|  | YES | NO |
| **O.2** | **Do you plan to use specially modified animals?**(e.g. diabetics, transgenics, any disease or condition that could affect the anesthesia) (If YES, please describe) |  |  |
|  |
|  |
|  |  |
|  |
|  YES NO |
| **O.3** | **Will food and/or fluid be withheld?** (If YES, complete the following) |  |  |
|  | If food and/or fluid will be withheld, it is your responsibility to see that it is done either by completing the task yourself, or by making arrangements with the caretakers to do so. Other than rodents, most animals should be fasted prior to anesthesia. |
|  | O.3.a  | How long will food be withheld? |  |
|  |
| **O.4** | **Approximately how long will the animal will be anesthetized?** (If multiple surgeries, describe for each) |
|  |  |
|  |
| **O.5** | **Describe anesthetic monitoring procedures.** (Include frequency of monitoring) |
|  |  |
|  |
|  | YES | NO |
| **O.6** | **Will animals undergo more than one anesthesia?**  (If YES, complete the following) |  |  |
|  | O.6.a | How many times will an animal be anesthetized? |  |
|  | O.6.b | What will be the interval between anesthesias? |  |
|  |
| **O.7** | **What arrangements have been made for animal recovery?** It is imperative that animals be closely monitored during anesthesia recovery. Endotracheal tubes should be removed when animals begin to regain jaw motions. Animals should be initially placed with their right side up and kept warm. Animals should be placed in a sternal position as soon as the animal can maintain itself. Vital signs such as breathing and heart sounds should be monitored until the animal has regained consciousness. Anesthesia recovery is not complete until the animal can stand on its own. If other arrangements for recovery should be noted, please complete below. |
|  |  |
|  |
| **O.8** | **If paralytic agents are being used, complete the following.** (List drug in O.1)  |
|  | O.8.a | Justify why the paralytic agent is needed. |
|  |  |
|  | O.8.b | Explain how the animal will be monitored to assure that the animal is properly anesthetized while the paralytic agent is being used. |
|  |  |

|  |
| --- |
| P. ANIMAL SURGERY INFORMATION |
|  |
| **Complete only if applicable to your project.** If not, please remove from packet. |
| **For all surgeries, you must also complete the anesthesia section, SECTION O.** |
| If there are multiple surgeries on the same or different species, or if complex procedures will be described, this surgery form should be duplicated and completed for each surgical procedure. |
| After animals have been received by the Office of Animal Care Management and have been released for research, it is the P.I. and/or their designee who is responsible for evaluating the health status of animals.  |
|  |
| Be sure that the individual(s) who will administer anesthesia, perform surgery, or monitor recovery have been properly training and are noted in Section (A.3.) |
|  |
|  | YES | NO |
| **P.1 Is this survival surgery?** |  |  |
|  |
|  | OACM Surgical Suite | Ungulate Facility | Other (Bldg./room) |
|  | **P.1.a** | Where will the surgery be performed? |  |  |  |
|  |
|  | **It is recommended that surgery should be performed early in the week and in the morning so that animals will have time to recover prior to the end of the day or week.**  |
|  | YES | NO |
|  | **P.1.b**  | **Do your research needs necessitate surgery later in the week or late afternoon?** |  |  |
|  | (If YES, please consult with OACM about adequate animal and veterinary care) |
|  |
|  | **P.1.c**  | **Check the following procedures that apply** (If the procedure is not listed, check other and describe or attach a complete description.) |
|  |
|  | **Indicate procedure** (Please check) |
|  |  | Biopsy | List organ/tissue |  |
|  |  | Superficial Surgical Implant (Catheter or Device) | Describe |  |
|  |  | Laparotomy |
|  |  | Thoracotomy |
|  |  | Intracranial |
|  |  | Orthopedic |
|  |  | Other (describe) |  |
|  |
|  YES NO |
| **P.2 Will an individual animal be subjected to more than one MAJOR survival surgery?**  (If YES, explain how surgeries are related and **JUSTIFY** the scientific need for more than one surgery per animal). Also be sure to check box “B” in section A.9. |  |  |
|  |
|  |  |
|  |
|  | **P.2.a** | How many animals will be subjected to multiple Major survival surgeries? |  |

 Should match section A.9.

|  |
| --- |
|  |
| **PRE‑OPERATIVE PROCEDURES** |
|  |
| **P.3 Surgical preparation.** For survival surgical procedures, the surgical site must be prepared by removing the hair, the aseptically cleaning the area using 3 alternating scrubs with povidone-iodine SCRUB and alcohol followed by a final application of povidone-iodine SOLUTION. For non-survival surgery, it is recommended that the hair be removed and the area cleaned with alcohol. If you wish to use a different procedure, please describe below. |
|  |
|  |  |
|  |

|  |
| --- |
| **OPERATIVE PROCEDURE** |
|  |
| **P.4 What surgical approach will be used?**  |
|  |  |
|  |
| **P.5 Describe the surgical procedure.**  |
|  |  |
|  |
| **P.6 Describe the closure of the surgical incision.**  |
|  |  |
|  |

|  |
| --- |
| **POST‑OPERATIVE PROCEDURES** |
|  |
| **P.7 Monitoring.** After the animal has recovered from anesthesia, how often will the animal be monitored during the post-operative period (until sutures are removed)?  |
|  |
|  | Once a day |  |  | Twice a day |  |  | Other (please specify) |  |  |
|  |
| P.8 Analgesia |
|  |
|  | **P.8.a** | **Analgesia Description**  |
|  | Generic Name | Dose (mg/kg) | Route | Frequency | Duration |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

|  |
| --- |
|  |
|  | **P.8.b** | **Post-operative analgesia should begin prior to the anesthetic recovery of the animal. If the analgesic will be started at some other time, please describe below.** |
|  |
|  |  |
|  |
| **P.9 When will sutures or staples be removed?** (Usually 7 days)  |
|  |  |
|  |
| **P.10 Describe any additional post-operative care required.**  |
|  |  |
|  |
|  YES NO |
| **P. 11 Will any expired surgical supplies (not including drugs) be used?**  |  |  |
|  | If “YES”, please explain and justify. |
|  |  |

|  |
| --- |
| Q. IMMUNIZATION PROCEDURES |
|  |
| **Complete only if applicable to your project** If not, please remove from the packet. |
| **If you are immunizing animals as part of an antibody production/collection procedure then also complete SECTION R.** |
|  |
| **Q.1 Briefly explain how you will immunize the animals?**  |
|  |  |  |
|  |
|  YES NO |
| **Q.2 Will Freund's Complete Adjuvant be used?** (If YES, please JUSTIFY ITS USE and complete the following) |  |  |
|
|  |
|  | Q.2.a | Justification |  |
|  | Q.2.b  | Immunization Site(s) |  |
|  | Q.2.c  | Site preparation |  |
|  | Q.2.d  | Number of sites |  |
|  | Q.2.e | Route |  |
|  | Q.2.f | Total Max volume per site |  |
|  | Q.2.g | How many times will it be repeated? |  |
|  |
|  | YES | NO |
| **Q.3 Will Freund's Incomplete Adjuvant be used?** (If YES, please JUSTIFY ITS USE and complete the following) |  |  |
|  |
|  |
|  | Q.3.a | Justification |  |
|  | Q.3.b | Immunization Site(s) |  |
|  | Q.3.c | Site preparation |  |
|  | Q.3.d | Number of sites |  |
|  | Q.3.e | Route |  |
|  | Q.3.f | Total Max volume per site |  |
|  | Q.3.g | How many times will it be repeated? |  |
|  |
|  | YES | NO |
| **Q.4 Will a media other than Freund's Adjuvant be used, such as Ribi or Hunter TiterMax?** |  |  |
| (If YES, complete the following) |
|  |
|  | Q.4.a | Name of Adjuvant |  |
|  | Q.4.b | Immunization Site(s) |  |
|  | Q.4.c | Site preparation |  |
|  | Q.4.d | Number of sites |  |
|  | Q.4.e | Route |  |
|  | Q.4.f | Total Max volume per site |  |
|  | Q.4.g | How many times will it be repeated? |  |
|  |
| **Q.5 Describe and fully justify what anticipated unalleviated pain, stress, or discomfort may be expected to be associate with antibody production and collection**  |
|  |
|  |  |

|  |
| --- |
| **POST‑PROCEDURE CARE** |
|  | YES | NO |
| **Q.6 Will post‑procedure care be required?** (If YES, complete the following) |  |  |
|  |
|  | Q.6.a | Who will provide care? |  |
|  | Q.6.b | What post‑procedure care is required? |  |
|  | Q.6.c | When will post‑procedure care be given? |  |
|  | Q.6.d | What analgesics will be given?  |  |
|  |  | (If none, explain) |  |
|  | Q.6.e | What will be the endpoint? |  |

|  |
| --- |
| R. ANTIBODY PRODUCTION and COLLECTION |
|  |
| **POLYCLONAL ANTIBODIES** |
|  | YES | NO |
| **R.1 Will polyclonal antibodies be produced?**  (If YES, briefly describe) |  |  |
|  |
|  |  |
|  |
|  | R.1.a  | What species of animal(s) will be used (list all species) |  |
|  | R.1.b  | What is the approximate number of antibodies you wish to make  |  |
|  | R.1.c  | What is the approximate number of animals needed per antibody |  |
|  | R.1.d | What is the TOTAL number of animals requested for polyclonal antibody production on this project (Justify this number in section E5.)  |  |
|  |
| **MONOCLONAL ANTIBODIES** |
|  | YES | NO |
| **R.2 Will monoclonal antibodies be produced?** (If YES, Please briefly describe) |  |  |
|  |  |
|  |
|  | R.2.a | What species of animal(s) will be used (list all species) |  |
|  | R.2.b | What is the approximate number of antibodies you wish to make  |  |
|  | R.2.c | What is the approximate number of animals needed per antibody |  |
|  | R.2.d | What is the TOTAL number of animals requested for monoclonal antibody production on this project (Justify this number in section E5.) |  |
|  |
|  | According to OLAW, use of the mouse ascites method can only be used if: i.) the proposed use is scientifically justified, ii.) methods that avoid or minimize discomfort, distress, and pain (including *in vitro* methods) have been considered and iii.) the latter have been found to be unsuitable. |
|  |
|  | R.2.e | Please scientifically justify why *in vitro* methods are not suitable for your studies. |
|  |  |
|  |
| **R.3 Describe and fully justify what anticipated unalleviated pain, stress, or discomfort may be expected to be associated with antibody production and collection.**  |
|  |
|  |  |
| **COLLECTION PROCEDURES** |
|  | YES | NO |
| **R.4 Will a chemical restraint be used for antibody collection?**   |  |  |
|  | (If YES, complete the following and SECTIONS A.18, O and S)  |
|  |
|  | R.4.a | Generic Name of Drug |  |
|  | R.4.b | Dose |  |
|  | R.4.c | Route |  |
|  | R.4.d | Frequency |  |
|  | R.4.e | Duration |  |
|  |
|  | YES | NO |
| **R.5 If ascites occurs, will fluids be removed from the abdomen prior to death?** (If YES, complete the following) |  |  |
|  |
|  |
|  | R.5.a | Method |  |
|  | R.5.b | Frequency |  |
|  | R.5.c | Total number of collections |  |
|  |
| **POST‑PROCEDURE CARE** |
|  |
|  | YES | NO |
| **R.6 Will post‑procedure care be required?** (If YES, complete the following) |  |  |
|  |
|  | R.6.a | Who will provide care? |  |
|  | R.6.b | What post‑procedure care is required? |  |
|  | R.6.c | When will post‑procedure care be given? |  |
|  | R.6.d | What analgesics will be given?  |  |
|  |  | (If none, explain) |  |
|  | R.6.e | What will be the endpoint? |  |
|  |

|  |
| --- |
| **S. ANIMAL DRUG USE PAGE (no longer used - 12/08)** |
|  |

|  |
| --- |
| T. BREEDING COLONY |
|  |
|  | **Complete only if applicable to your project.** If not, please remove from the packet. Rodent breeding colonies are best used to produce appropriate numbers of research animals in instances where the needed animals are transgenic, difficult to procure, or in short supply. Rodent breeding colonies are rarely cost effective in instances where the animals are easily procured from commercial vendors. If a breeding colony is deemed appropriate, **it is the investigator’s responsibility to breed only enough animals necessary to complete their research.** Excess production of animals that are then destroyed is not in parallel with the Universities commitment to “Reduce”, “Refine” and “Replace” the use of animals in research. |
|  |
| **T.1 What species, stocks and/or strains will you be breeding?** (use substrain designations) |
|  |  |
|  |
| **T.2 What Breeding Scheme will you use?** |
|  |  |
|  |
| **T.3 Describe your genetic monitoring program.**  |
|  |  |
|  |
| T.4 Approximately how many breeding pairs will be maintained at any one time? |  |
|   |
| T.5 At approximately what age will you use the animals? |  |
|  |
| **T.6 Can you use all offspring or will you need to select for age, gender, DNA sampling? Explain below.** |
|  |  |
|  |
|  | **T.6.a.** | What will happen to unused offspring? |  |
|  | **T.6.b.** | What will happen to unused breeders? |  |
|  |
| T.7 If you must select by DNA sampling, what screening technique do you use? |
|  | YES | NO |
|  | **T.7.a.** | **Blood sample** (Complete SECTION G1) |  |  |
|  | **T.7.b.** | **Tail snip** (Complete SECTION G3) |  |  |
|  | **T.7.c.** | **Other** (Describe) |  |  |  |
|  |
| **T.8 If you must select by DNA sampling, at what age do you sample?** |  |
|  |
|  | YES | NO |
|  | **T.8.a.** | **Do you need to do tail snips beyond 3 weeks of age?**  |  |  |
|  |  | Note: tail snips done beyond 3 weeks of age must be completed under anesthesia. |
|  |
| **T.9 If animals will be weaned beyond 3 weeks of age, state the age and explain why.** |
|  |  |
|  |
| T.10 List any special husbandry requirements for the animals (e.g. barrier housing for immunocompromised strains). |
|  |  |
|  |
|  | YES | NO |
| **T.11 Will animals be used on other protocols in addition to the current protocol?** |  |  |
|  | (If YES, please list other protocol numbers) |
|  | Protocol # |  | PI |  |
|  |
| **T.12 What methods will be used (ear punch, ear tag, transponder, tattoo, etc.) to identify weanlings?** |
|
|  |  |
|  |

|  |
| --- |
| U. WILDLIFE or EXOTIC SPECIES |
|  |
|  | **Complete only if applicable to your project.** If not, please remove from the packet. |
|  | YES | NO |
| U.1 Are special permits or documents required for this project? (If YES, please attach) |  |  |
| U.2 Will the project be done outside the UVM animal facilities? (If YES, complete the following) |  |  |
|  |
|  | Location |  |  |
|  |
|  | The IACUC has regulatory authority over any site where animals on this protocol reside or are used. The IACUC may wish to inspect the location and/or observe procedures performed in this protocol. With the approval of this protocol, you also agree to make reasonable provisions for these inspections if requested. |
|  |
|  | Be sure to describe in detail what will be done to the animals in Section D the “Protocol Synopsis”. Animal trapping, confinement or restraint, anesthesia, surgical procedures, euthanasia methods, etc. must be described in appropriate preceding sections. |
|  |
|  | According to the Animal Welfare Act, a “field study” refers to a “study conducted on free-living wild animals in their natural habitat, which does not involve an invasive procedure, and which does not harm or materially alter the behavior of the animals under study.” For practical purposes, this means that the animals will only be observed and the habitat will not be manipulated or changed.  |
|  |  |  |
|  | YES | NO |
| U.3 Based on the above definition, is this protocol a “field study”? (If NO, complete the following) |  |  |
|  |
|  |
|  | Because more than observation is occurring, there must be a Veterinarian available to provide emergency care if needed. If UVM Veterinarians will not be providing this service, complete section A.20. |
|  | YES | NO |
|  | **U.3.a.** | **Will this project have an impact on other “non-target” animals?** (If YES, describe below) |  |  |
|  |
|  |  |  |
|  | YES | NO |
|  | **U.3.b.** | Will this project have an impact on the habitat or environment? (If YES describe below) |  |  |
|  |
|  |  |  |
|  | YES | NO |
|  | **U.3.c.** | **Will animals be collected and transported alive to a UVM Animal Facility?** (If YES, please contact the University Veterinarian for special arrangements before transport) |  |  |
|  |
|  | YES | NO |
|  | **U.3.d.** | **Will animals be euthanized in the field?** (If YES, please contact the University Veterinarian about appropriate field techniques and carcass disposal) |  |  |
|  |
|  | YES | NO |
|  | **U.3.e.** | **Will controlled substances be used for any field procedures?** (If YES, complete the following and Sections A.18. and S.)  |  |  |
|  |  |
|  |
|  | Drug Name |  | **Route** |  | **Duration** |  |  |
|  | Dose mg/kg |  | **Frequency** |  |  |  |  |
|  | Plan for proper storage |  |

|  |
| --- |
| **V. DEPARTURES FROM ANIMAL WELFARE STANDARDS** |
|  | **Complete this section if you are requesting a departure from University Policy or the Guide for the Care and Use of Laboratory Animals (8th edition) for scientific reasons. Specify the departure(s) that are requested (Guide pages included for reference) and complete the related item(s) as indicated.** |
|  |  |
|  | Social Housing (Guide pg 64), complete Section V.1. |
|  | *Note: It is NOT necessary to justify single-housing of animals if it is done because of social incompatibility or veterinary-related concerns about animal well-being (e.g. post-surgical animals). However, individual-housing should be limited to the minimum period necessary, and additional enrichment should be provided for individually-housed animals. See* [*Environmental Enrichment and Social Housing*](http://www.uvm.edu/~iacuc/education/research%20manual/researchmanual.html#_Toc506206423) *policy.* |
|  | Environmental Enrichment (Guide pg 52), complete Section V.2. |
|  |  |
|  | Use of Non-pharmaceutical Grade Chemicals (Guide pg 31), complete Section V.3. |
|  |  |
|  |  Free Choice Feed and Water (Guide pg 30), complete Section M. |
|  |  |
|  | Other Departure Request, complete Section V.4. |
|  |  |
| **V.1. Social Housing**  |
| V.1.a. Specify the housing arrangement that is requested under this departure (e.g. single housing, restrictive housing, isolated housing). Be specific. |
|  |
| V.1.b. For each animal or study group requiring this departure, identify the specific group and indicate the number of animals involved. |
|  |
| V.1.c. Describe the experimental or other specific reasons why animals on this protocol should be exempted from standard species-specific social housing and specify the length of time that the exemption must apply. |
|  |
| V.1.d. Will single housing (if single housing is being used) be for the shortest period possible? Please indicate yes or no, include the anticipated maximum period for single housing, and the animals or study group to which single housing applies.  |
|  |
|  |
| **V.2. Environmental Enrichment (in addition to social housing)** |
| V.2.a. For each animal or study group requiring this departure, identify the specific group and number of animals involved. |
|  |
| V.2.b. Indicate the duration of the departure that is required for each animal and/or study group and explain the reason that particular time period is necessary. |
|  |
| V.2.c. Describe the experimental or other scientific reasons why animals on this protocol should be exempted from standard species-specific enrichment. |
|  |
|  |
| **V.3. Use of Non-pharmaceutical Grade Chemicals** |
| V.3.a. Specify the non-pharmaceutical grade chemical to be used in this study. |
|  |
| V.3.b. Describe how sterility and safety of the drug is assured by the laboratory.  |
|  |
| V.3.c. Justify why it is necessary to use a non-pharmaceutical grade substitute. |
|  |
|  |
| **V.4. Other Request for Departure** |
| V.4.a. Describe the specific departure that you request. |
|  |
| V.4.b. For each animal or study group requiring this departure, identify the specific group and the number of animals involved. |
|  |
| V.4.c. Describe the experimental or other scientific reasons for the departure request. |
|  |