Last Name of PI	Click or tap here to enter text.	Protocol No.	Assigned by IACUC
Official Date of Approval	Click or tap to enter a date.		

VIRGINIA STATE UNIVERSITY (VSU)
INSTITUTIONAL ANIMAL CARE & USE COMMITTEE (IACUC)
ANIMAL RESEARCH PROTOCOL (ARP)

Rev. March 2026

I. Administrative Information

Provide identifying and administrative details for this protocol, including PI and co-investigator information, submission type (initial, renewal, or modification), related and prior approvals, and funding sources.

Principal Investigator (Name, Department, Address, Email):

Click or tap here to enter text.

Co-Investigators (Name, Department):

Click or tap here to enter text.

Protocol Title:

Click or tap here to enter text.

Submission Type: ☐ Initial ☐ Renewal ☐ Modification

Funding Sources: ☐ US Public Health Service (e.g., NIH) ☐ Private or Charitable Foundation ☐ University Intramural Funds ☐ Private Company ☐ Other

If 'Other', specify:

Click or tap here to enter text.

Related documentation:

1) If this protocol has already been submitted to the R&D Committee, identify the project:

2) If this is a triennial de novo review, identify previously approved ARP(s) (include # and genotype of animals already used, and study results prompting changes):

Click or tap here to enter text.

3) List any other relevant previously approved animal use protocols (Title, IACUC Approval #, institution if different):

Click or tap here to enter text.

II. Study Objectives and Experimental Design (Lay Language)

Using non-technical, layperson language, describe the purpose of the study, its relevance, how it is intended to improve human or animal health or serve society, and why the anticipated benefits outweigh any potential pain or distress to the animals.

Relevance, Objectives, and Harm–Benefit Analysis:

Click or tap here to enter text.

Experimental Design Summary:

Click or tap here to enter text.

Description of Animal Procedures (non-technical):

Click or tap here to enter text.

Rationale for Animal Use and Species Selection:

Click or tap here to enter text.

Justification of Animal Numbers (include power analysis if available):

Click or tap here to enter text.

III. Animal Requirements

Describe the animal species and characteristics, housing location, source, sex, age/size, health status, duration of the project, and the maximum and total numbers of animals to be used.

Species and Characteristics (Genus/species; strain/breed; common name):

Click or tap here to enter text.

Animal Source and Housing Location:

Click or tap here to enter text.

Sex, Age/Size, Health Status:

Click or tap here to enter text.

Project Duration:

Click or tap here to enter text.

Maximum Number Housed at One Time:

Click or tap here to enter text.

Total Number Used Over Project:

Click or tap here to enter text.

IV. USDA Pain and Distress Classification

Assign the appropriate USDA pain/distress category (B, C, D, or E) to each experimental group or procedure and summarize animal numbers by year and three-year total. If Category D or E procedures are included, provide the required monitoring and justification details below.

USDA Category (select all that apply): B C D E

If you check Category D, complete the 'Category D Procedures' field below. If you check Category E, complete the 'Category E Justification' and 'Consideration of Alternatives' fields.

Species / Experimental Group / Procedure(s)	USDA Category (B/C/D/E)	Year 1 #	Year 2 #	Year 3 #	3-Year TOTAL

Category D Procedures – Monitoring and Pain/Distress Alleviation (agents, dose, route, frequency):

Click or tap here to enter text.

Category E Procedures – Scientific Justification (if applicable):

Click or tap here to enter text.

Consideration of Alternatives – databases searched, dates, periods covered, keywords:

[Enter text]

V. Husbandry and Veterinary Care

*Describe veterinary oversight, transportation methods, housing conditions, group or single housing justification, environmental enrichment, any departures from the *Guide* or USDA regulations, and special husbandry or genetically engineered animal requirements, if applicable.*

Attending Veterinarian (name, affiliation, email) and date consulted:

[Enter text]

Transportation Methods (intra-facility, inter-facility/out-of-state):

[Enter text]

Housing consistent with the Guide and USDA regulations? ☐ Yes ☐ No (provide justification below)

Housing Description and Justification (Guide/USDA compliance; departures if any):

Housing Details by Species (complete the table below):

Species	Type of housing	# individuals per housing unit	Consistent with Guide/USDA	Max # housing units at one time
			☐ Yes ☐ No	
			☐ Yes ☐ No	
			☐ Yes ☐ No	
			☐ Yes ☐ No	

Environmental Enrichment (standard and any special provisions/restrictions):

Click or tap here to enter text.

Special Husbandry Requirements or Genetically Engineered Animal Considerations:

Click or tap here to enter text.

VI. Anesthesia, Analgesia, and Drugs

*List all anesthetics, analgesics, sedatives, biologics, and other substances to be used, including dose, route, frequency, duration, and personnel responsible for monitoring. Provide justification for any departures from the *Guide* or use of non-pharmaceutical-grade agents.*

Anesthetic Agents (dose, route, frequency, duration); personnel monitoring anesthesia and recovery:

Click or tap here to enter text.

Analgesics (dose, route, frequency, duration):

Click or tap here to enter text.

Other Drugs/Biologics/Reagents (dose, route, frequency, duration):

Click or tap here to enter text.

Non-Pharmaceutical Grade Use – Scientific Justification and Preparation/Administration Methods:

Click or tap here to enter text.

VII. Monitoring, Humane Endpoints, and Euthanasia

Describe animal monitoring plans, humane endpoint criteria, personnel responsible for illness reporting, methods of euthanasia (including dosage and route), confirmation of death, and carcass disposal.

Animal Illness – Personnel responsible for contacting Attending Veterinarian and PI/designee:

Click or tap here to enter text.

Humane Endpoints – Criteria for euthanasia:

Click or tap here to enter text.

Planned Euthanasia – Method, justification, AVMA compliance:

Click or tap here to enter text.

Carcass Disposal – Method and holding period (if any):

Click or tap here to enter text.

VIII. Termination or removal from protocol

Disposition of animals that will NOT be euthanized on this protocol:

Click or tap here to enter text.

Disposition of animals that will be euthanized on this protocol (method/justification/carcass disposal):

Click or tap here to enter text.

IX. Hazardous Agents and Biosafety

Identify all hazardous agents used in the protocol and describe biosafety approvals, safe handling procedures, and disposal methods.

Hazard Type	Agent	Biosafety Approval Date	Tracking #
Radioisotope			
Biohazard			
Carcinogen			
Chemical			
rDNA			
Other			

Safe Handling and Disposal Procedures (including radioactive waste monitoring, if applicable):

Click or tap here to enter text.

X. Personnel and Training

List all personnel involved in animal activities, including their experience, qualifications specific to this protocol, training history, and the plan to ensure ongoing proficiency. Include most recent IACUC or investigator training course completed (Name of course, institution, date) for each research pesonnel/PI.

PI (Name/Experience/Qualifications):

Click or tap here to enter text.

Other research personnel (For each individual: Name/Department, phone email/Experience/Qualifications):

Click or tap here to enter text.

Animal care and veterinary support staff personnel (For each individual: Name/Qualifications):

Click or tap here to enter text.

Training Plan – Procedures requiring training; trainers & qualifications; use of live/deceased animals (number and source); instructional alternatives if relevant:

Click or tap here to enter text.

XI. Occupational Health and Safety

Describe occupational health and safety requirements, completed training, and any non-routine OHSP measures that would potentially benefit or be required for personnel.

Non-routine OHSP Measures (if applicable):

Click or tap here to enter text.

Completed OHSP Training for All Personnel:

Click or tap here to enter text.

XII. Technical Description of Procedures

Provide a detailed, chronological description of all procedures animals will undergo, from initial handling through final disposition or euthanasia.

Surgery involved in this protocol? ☐ Yes ☐ No (If 'Yes' is checked, complete Appendix 1 – Surgery.)

If 'Yes' is checked, complete Appendix 1 – Surgery. If 'No', you may omit Appendix 1.

Chronological Description of All Procedures (from first handling to euthanasia):

Click or tap here to enter text.

Restraint (method, duration, frequency, observation, responsible personnel) – N/A if none:

Click or tap here to enter text.

Food/Fluid Restriction (methods, monitoring, records) – N/A if none:

Click or tap here to enter text.

XIII. Conflicts of Interest

Disclose any financial or professional interests that could reasonably be perceived as conflicts of interest and describe any management plans.

Affiliations/Financial Interests that could be perceived as COI:

Click or tap here to enter text.

Active COI Management Plan (if applicable) – Attach copy and describe relation to this research:

Click or tap here to enter text.

XIV. Certifications and Approvals

This section contains formal certifications by the Principal Investigator, Attending Veterinarian, and IACUC officials indicating review and approval of this protocol.

Principal Investigator Certification

I certify that, to the best of my knowledge, the information provided in this Animal Research Protocol (ARP) is complete and accurate, and that the work will be performed as described and approved by the IACUC. I understand that:

- IACUC approval must be renewed at least annually, with a complete de novo review every three years if work continues.
- IACUC approval is required prior to implementing any significant changes, including changes to animal species, numbers, procedures, or pain/distress categories.
- No personnel will perform animal procedures until training, occupational health enrollment, and IACUC confirmation are complete.
- I will comply with all applicable institutional, state, and federal regulations.

PI Name (Print):	Signature:	Date:
Click or tap here to enter text.	*Click or tap here to enter text.*	Click or tap to enter a date.

IACUC Official Certification

We certify that the care and use of animals described in this ARP have been evaluated in accordance with applicable federal regulations, institutional policies, and recognized

standards for animal care and use. The IACUC has determined that the proposed activities are appropriate and has approved this protocol.

Minority opinion: ☐ Attached ☐ N/A

Official Role	Name (Print)	Signature	Date
Attending Veterinarian	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap to enter a date.
IACUC Chair	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap to enter a date.

Appendix 1 – Surgery (Complete only if 'Surgery involved' is checked in Section XIII)

Complete this appendix only if surgery is involved. Include surgical classification, personnel, locations, peri-operative care, analgesia, monitoring, complications, and euthanasia if applicable.

Surgery Classification (species; terminal/survival; minor/major; multiple survival; justification):

Click or tap here to enter text.

Personnel (Individual(s) performing surgery; qualifications/training/experience):

Click or tap here to enter text.

Surgical Location (building/room; justification if not a dedicated surgical facility):

Click or tap here to enter text.

Pre-operative Care & Medications

Item	Agent/Action	Dose/Route/Frequency	Timing
Fasting/Water withholding			
Induction/Pre-treatments			
Other			

Intra-operative Management

Aspect	Details	Dose/Route/ Frequency (if applicable)	Notes/Justification
Medications (incl. paralytics)			
Anesthesia monitoring & ventilation			
Physical support (warming, cushioning)			
Sterility measures (survival surgery only)			
Other			

Post-operative Care

Item	Agent/Action	Dose/Route/ Frequency/Duration	Notes/Justification
Immediate support			
Analgesia			
Other medications			
Monitoring (freq/location/ personnel; after-hours plan)			

Medical Records (location; personnel responsible):

Click or tap here to enter text.

Post-operative Consequences/Complications and Responses (common/expected consequences; criteria for euthanasia):

Click or tap here to enter text.

Emergency Restrictions (drugs/classes to avoid if research personnel cannot be reached):

Click or tap here to enter text.

If Non-survival Surgery – Euthanasia Method and Confirmation of Death:

Click or tap here to enter text.

Appendix 2. Animal Use Guidelines

Principal Investigators (PIs) can consult the website of the societies relevant to their study for access to guidelines. It is the PI's responsibility to be familiar with the guidelines applicable to a given project.

Place an 'X' in the first column next to each guideline that has been reviewed as part of this research:

☐	*Guide for the Care and Use of Laboratory Animals, 8th edition*. National Research Council, 2011. **("The Guide" applies to all studies involving live, vertebrate animals.)**
☐	*Guide for the Care and Use of Agricultural Animals in Research and Teaching. 4th Edition* American Society of Animal Science 2020
☐	*Guidelines to the Use of Wild Birds in Research*. The Ornithological Council, 2010.
☐	*Guidelines for the Use of Fishes in Research*, American Fisheries Society, 2014.
☐	*Guidelines of the American Society of Mammalogists for the Use of Wild Mammals in Research and Education*, American Society of Mammalogists, 2016.
☐	*Guidelines for Use of Live Amphibians and Reptiles in Field and Laboratory Research*, Herpetological Animal Care and Use Committee (HACC) of the American Society of Ichthyologists and Herpetologists, 2004.

Appendix 3. USDA Classifications

For the purposes of protocol review and reporting, the USDA has established categories of research based upon a summation of the associated discomfort, distress, and/or pain. Each protocol application must include assignment of a USDA classification to each unique experiment or instructional activity.

Classification B: Animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery, but not yet used for such purposes.

Examples: Breeding colonies of any animal species (USDA does not require listing of rats, mice, birds) that are handled in accordance with IACUC approval, the Guide, and other applicable regulations. Breeding colony includes parents and offspring. Newly acquired animals that are handled in accordance with IACUC approval and applicable regulations. Animals held under proper captive conditions or wild animals that are being observed.

Category C: Animals subjected to procedures that cause no pain or distress, or procedures that cause only momentary or slight pain or distress and do not require the use of pain-relieving drugs.

These include housing and restraining animals for observation or examination; tattooing, blood sampling, injection of nontoxic material; standard approval methods of euthanasia that induce rapid unconsciousness; short periods (few hours) of food and water deprivation and single group behavioral observations. Studies on anesthetized animals that do not regain consciousness are included in this category; this includes acute, non-survival experiments (no survival surgery in Category C classification).

Category D: Animals subjected to potentially painful or stressful procedures that are alleviated by appropriate anesthetics, analgesics, tranquilizers, removal from study, euthanasia, or other approved methods.

These include cannulation of vessels or body cavities performed under anesthesia; minor surgical procedures under anesthesia; minor surgical procedures under anesthesia such as biopsies, laparoscopy and others where post-surgical pain/distress is absent or minimal; major surgical procedures, under anesthesia and permitting recovery, that result in minor post-surgical pain (as determined by the IACUC and veterinarian); studies using noxious stimuli from which escape is possible; using tumor implants/hybridomas; domestic animal production methods (tail docking, neutering, dehorning, debeaking, etc.); prolonged periods (several hours or more) of physical restraint or deprivation of the animal's environmental necessities, such as maternal deprivation, aggression, or predator-prey interactions; procedures which alter perceptual or motor functions; studies in which diseases or toxicities are induced, and those in which animals are treated or euthanized when clinical symptoms begin to appear. Animals in Category D studies experience pain/discomfort, but the necessary treatments to alleviate the symptoms are available and provided, or the animals are euthanized (adherence to acceptable veterinary practices, i.e., post-op analgesia, fluid therapy and required veterinary nursing care).

During and after Category D studies, it is unacceptable for animals to show anorexia, dehydration, abnormal discharges, hyperactivity, increased/recumbency or dormancy, increased vocalization, self-mutilation, aggressive defensive behavior, or demonstrate social withdrawal and

self-isolation. For Category D procedures, investigators must address, within their protocol, intervention/treatment for these possible responses.

Category E: Animals subjected to potentially painful or stressful procedures that are not alleviated by anesthetics, analgesics, tranquilizers, or other approved methods. Withholding these interventions must be scientifically justified and approved by the IACUC.

The designation of this category is cause for extremely close scrutiny by the IACUC and requires that the investigator include in Section 32.2 a full explanation and justification for this pain level. Such studies include application of noxious stimuli from which escape is impossible; exposure to noxious stimuli and agents whose effects are unknown; foot pad or intradermal or intraperitoneal injections of Freund's complete adjuvant; new experiments which have a high degree of invasiveness (with no veterinary involvement); surgery without anesthetics; induction of aggressive behavior leading to self-mutilation or fighting; toxicity testing where death is the end-point; induction of diseases where infected animals are permitted to succumb rather than be euthanized or treated therapeutically; using a euthanasia method not recommended by the AVMA.

Category E projects present an explicit responsibility on the researcher to explore alternative methods before proceeding with the study. Category E projects are considered by some to be highly questionable or unacceptable, irrespective of the significance of the anticipated results. Before the IACUC can review and approve these projects, the justification statements and veterinary involvement must be clearly presented and understandable.