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Description automatically generated with medium confidence

**Animal Use Protocol Application**

|  |
| --- |
| FOR INTERNAL USE ONLY |
| AUP #: AUP# |
| IBC # (if applicable): IBC # |
| IRB # (if applicable): IRB # |

**Principal Investigator/Instructor Information**

PI Last Name: Last name PI First Name: First name

PI Department: Enter department

Title of the Project: Enter project tile

Project Description: Enter a brief, non-technical project description

Requested ABSL: Select ABSL being requested

Facility Building: Enter building Room: Enter room number

Phone numbers

Office: Enter office phone number Cell: Enter cell phone number

Email: Enter A&M-SA email address (Please provide your official university email.)

**Other Personnel** (to add another, mouse over any area between “Last Name” and “Email”, click in the grey box, then click the blue “+” sign)

Last Name: Last name First Name: First name

Training: Enter training

Experience: Enter experience

Phone numbers

Office: Enter office phone number Laboratory: Enter lab phone number Cell: Enter cell phone number

Email: Enter A&M-SA email address (Please provide their official university email.)

Identify your Animal Care Contact Person:

|  |  |
| --- | --- |
| **Type of application (check all that apply)** | |
| New Protocol Choose a type. | |
| 3-year resubmission Old Protocol #: |
| Amendment | |
| Annual renewal (If there are any changes please submit an Amendment. Annual renewal submission is still needed even if you submitted an Amendment) |

# PART I: Application for IACUC Protocol

## **Section 1 Principal Investigator/Instructor Assurances**

Initials · I attest that the information contained in this registration is accurate and complete. I agree not to initiate any research subject to IACUC approval without prior approval from the IACUC.

Initials · I agree to comply with all Texas A&M University-San Antonio (A&M-SA) Institutional Animal Care and Use Committee (IACUC) requirements regarding research involving live vertebrate animals.

Initials · I agree to inform all personnel working in the laboratory that potentially all vertebrate animals produce allergen and cohabit with microorganisms can be pathogens under certain conditions. All personnel are provided training in relevant techniques and the proper disposal of biohazardous materials.

Initials · I agree the discomfort of animals will be limited to that which is unavoidable. Analgesic, anesthetic, and tranquilizing drugs will be used where indicated and appropriate to minimize pain and discomfort. Except as specifically described in this protocol, veterinary care will be provided to animals showing evidence of pain and discomfort.

Initials · I acknowledge my responsibility if animal use or procedures described in this protocol should need to be revised or amended, I will notify the IACUC and gain IACUC approval for the amendments PRIOR to implementation following [SOP 110](https://www.tamusa.edu/academics/research-and-graduate-studies/documents/IACUC-SOP-110.00-amendment.pdf). I understand that my failure to report significant changes may place the University and myself in violation of regulations and may result in the suspension of my animal activities.

Initials · I will notify the IACUC regarding ANY unexpected results that adversely impact the animals in this protocol. Any unanticipated pain or distress, morbidity or mortality will be reported to the Attending Veterinarian (or designee) and the IACUC.

Initials · I understand that the approval of this AUP is no way is obligates the IACUC or the University to guarantee animal housing space, animals and/or equipment used to conduct the project.

Initials · As required by regulations, I assure that the activities described herein do not unnecessarily duplicate previous procedures/projects.

Initials · If the protocol is funded by a grant, I assure all procedures described in this protocol are covered by the grant.

***All signatures are required prior to approval.***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Date |  | Name |
| Signature of PI |  | Date |  | Printed Name |
|  |  | Date |  | Name |
| Signature of Chair |  | Date |  | Printed Name |
|  |  | Date |  | Name |
| Signature of Dean (if applicable) |  | Date |  | Printed name |

## **Section 2 Justification for Animal Use (in non-scientific terns)**

Use non-scientific language to explain the goals and importance to human or animal health, the advancement of knowledge, or the good of society.

Why must live vertebrate animals be used rather than cell cultures, computer models, invertebrate animals, microbes, etc?

What characteristics of the animal species to be used justify their selection?

Please provide a statement to address the potential harm to the animals in this study (e.g Pain/Distress, Morbidity, Mortality) relative to the benefits to be gained by this study.

## **Section 3 Project Activities (check all that apply)**

|  |  |
| --- | --- |
| Instruction  Breeding  Research | |
| Wild capture in the field |
| Biological infectious agents | |
| Non-survival surgery\*1 |
| Survival Surgery\*2 \*3 |
| Death as the end point |
| Injections |
| Harvesting tissues  Agent that are infections or potentially infectious to humans,  animals, or plants |

\*1-a surgery in which animals are euthanized under general anesthesia prior to anesthetic recovery. (In most cases, \*\*perfusion is not a non-survival surgery)

\*2-a surgery in which animals are expected to recover from anesthesia following the procedure.

\*3-Multiple anesthetic events or more than one survival surgery (major or minor)

## **Section 4 Species Table**

For distress categories, TAMUSA SOP #[116.00](https://www.tamusa.edu/academics/research-and-graduate-studies/documents/Instituitional-Animal-Care-and-Use-Committee-11600-Protocol-Review.pdf)

For guidelines on purchase of animals, TAMUSA SOP #[201.00](https://www.tamusa.edu/academics/research-and-graduate-studies/research-compliance/documents/IACUC-SOP-201.0-Purchase-of-Laboratory-Animals.pdf)

|  |  |  |
| --- | --- | --- |
| **Common Name** | **Genus** | **Species** |
|  |  |  |

(to add another source, mouse over any area, click in the grey box, then click the blue “+” sign)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Source** | **Housing location**  **(Building/room #)** | **# New Requested for 3 Years** | | | | **# Carry-Over Animals (animals approved in the previous cycle: only 3-yr)** | | | |
|  |  | B | C | D | E | B | C | D | E |
|  |  |  |  |  |  |  |  |

|  |
| --- |
| **Duplication of Research**  Does this work duplicate prior research?  Yes No  If yes, please provide the scientific justification/rationale and references for duplicating prior research: |

## **Section 5 Animal Use Justification**

Based on a search for alternatives to animal research, could some or all the procedures performed on live animals be replaced by in vitro techniques, tissue culture, a computer model or simulation techniques? Indicate why not.

Check all that apply:

The complexity of the processes being studied cannot be duplicated or modeled in a simpler system.

There is not enough information known about the processes being studied to design nonliving models.

Teaching protocol to prepare students, to develop skills, or understand processes.

Other

Provide further explanation of your selection(s) made above:

## **Section 6 Animal Identification**

Cage/Pen/Tank/Stall Card

Leg Band

Microchip

Microchip location \_\_\_\_\_\_\_\_\_

Ear Notching

Ear Tag

Ear Punch

Non-Invasive External Marking

Tattooing

Toe Clipping (Note: May only be performed on altricial rodents less than 7 days of age.)

Provide Scientific Justification: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Other

Please Describe:

**BREEDING PROTOCOL** THIS SECTION CONCERNS BREEDING PROTOCOL. If there is no breeding, skip this section.

## **Section 7 Breeding Colony, Animal Type & Numbers**

Using the table below indicate the maximum number of animals to be used in this colony, indicating breeders and progeny separately, to establish the colony and to maintain a colony for the period of this protocol (maximum, 3 years). List total numbers of each species of animals to be used for the current study OVER A PERIOD OF THREE YEARS by Distress/Use Classification:

**Total number of animals per Distress/Use**

**Classification over the 3-year approval period**

(to add another species, mouse over any area, click in the grey box, then click the blue “+” sign)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Species** |  | **B** | **C** | **D** | **E** |
|  | Female Breeders |  |  |  |  |
| Male Breeders |  |  |  |  |
| Offsprings |  |  |  |  |
| **Total:** |  |  |  |  |

Describe how pain or distress associated with the line will be monitored. Include clinical signs and frequency of monitoring, Including off-hours. (Note: The animals must be included in either the “D” or “E” category.)

Describe what procedures will be performed on the animals.

Describe how pain or distress associated with the line will be monitored. Include clinical signs and frequency of monitoring, Including off-hours. (Note: The animals must be included in either the “D” or “E” category.)

Describe what procedures will be performed on the animal.

If surgery is involved, fill out Sections 14, 15, 16 & 17. For Biological agents, Section 18. Genetically Altered Animals, Section 19; Radioactive materials, Section 20; Animal Disposition, Section 21.

**TEACHING PROTOCOL** THIS SECTION CONCERNS TEACHING PROTOCOL. If there is no teaching, skip this section.

## **Section 8 Procedures on Teaching Protocol**

Please provide the course numbers and titles covered by this protocol:

Course #: \_\_\_\_\_\_\_\_\_\_\_\_\_

Course Title: \_\_\_\_\_\_\_\_\_\_\_

Section: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Thoroughly describe all animal use procedures/treatments in chronological order. This includes frequency and duration of each procedure/treatment to be performed on individual animals. Indicate how many students per animal.

Please describe any expected adverse animal welfare condition (e.g. pain/distress, morbidity, mortality) that may result in using animals for instruction on this protocol. Examples of possible adverse events during teaching may include instrument or catheter failure, anesthetic complications, congenital abnormalities, etc.

Describe how students are trained to safely work with animals including what hazard information (allergy, zoonosis, injury) is provided and what biosafety controls are used. (at least one is required)

Syllabus Statement – **Please attach the syllabus and any additional training materials that are provided to the students.**

In class Discussion

Other

Please explain:

**Please attach training materials.**

If surgery is involved, fill out Sections 14, 15, 16 & 17. For Biological agents, Section 18. Genetically Altered Animals, Section 19; Radioactive materials, Section 20; Animal Disposition, Section 21.

**FIELD PROTOCOL**

THIS SECTION CONCERNS FIELD PROTOCOL. If there is no field work, skip this section.

## **Section 9 Use/Handling of Wild-caught / Non-domesticated Species**

Will this protocol include contact with wild or non-domestic animal spices?

**Yes No**

Describe the apparatus type and how it is used in this study:

Describe how animals are encouraged to exercise/use the apparatus:

Describe what type(s) of stimuli are used to encourage animals:

Describe the frequency/duration/rest period between sessions when an animal is used:

Describe any expected adverse or anticipated animal welfare events.

## **Section 10 Trapping**

Will this protocol include trapping of any animals?

**Yes No**

What type of traps will be used?

Enter a list of potential non-targeted species that could be trapped. These animals must be documented

and reported to the IACUC.

For live trapping, please provide provisions for animal care.

How frequently will they be checked?

**Please attach a copy of all pertinent permits.**

## **Section 11 Transportation of Animals**

Will animals be moved between A&M-SA buildings or from A&M-SA campus?

**Yes No**

What potential physical hazards (i.e. bites, scratches, attacks, ticks, etc.,) may be encountered in working/handling this species? Describe how personnel will be protected and risk(s) minimized.

If surgery is involved, fill out Sections 14, 15, 16 & 17. For Biological agents, Section 18. Genetically Altered Animals, Section 19; Radioactive materials, Section 20; Animal Disposition, Section 21.

**RESEARCH PROTOCOL**

THIS SECTION CONCERNS RESEARCH PROTOCOL. If there is no research, skip this section.

## **Section 12 Procedures Table**

Do not include procedure details in the table below. List only procedure names. Multiple procedures can be included in one line (listed by location).

(to add another species, mouse over any area, click in the grey box, then click the blue “+” sign)

|  |  |  |
| --- | --- | --- |
| **Species** | **Building/Room #** | **Procedure/s (multiple procedures can be included in one row)** |
|  |  |  |

Will prolonged restraint be used? Yes No

If yes, justify (rationale, frequency, duration, monitoring, removal criteria):

Provide additional instructions on what is required for this field.

## **Section 13 Clinical Signs on Experimental Animals**

Identify any signs of symptoms that are expected based on the procedures described above, including negative phenotypes. Report all figures expected to see for animals in this experiment, model, etc. Do not include general or non-specific signs that may occur in any naïve population.

## **Section 14 Surgery**

Will this protocol involve animal surgery?

# **Yes No**

Provide a brief description of all surgical procedures to be performed including, where appropriate, site of incision, procedures performed, anticipated duration of procedure, method of wound closure, etc.:

Check all that apply:

# Non-survival surgery (any species) (Animal is euthanized while under general anesthesia)

# Single rodent survival surgery

# Single non-rodent survival surgery

# Multiple survival surgeries on an individual animal (any species)

How many surgeries will be performed on a given animal? Number of Surgeries

What is the time period between each surgery? Time period

# Is more than one of the procedures considered major? Major surgery is defined as any surgical intervention that penetrates and exposes a body cavity OR which procedures substantial impairment of physical or physiological functions.

# **Yes** **No**

# Please provide SCIENTIFIC JUSTIFICATION as to why animals must be subjected to multiple survival surgeries and how the surgeries are related.

## **Section 15 Pre-operative procedures/care**

Are unhealthy animals exempt from surgery?

**Yes No**

Please provide rationale for performing surgery on unhealthy animals:

# Which pre-operative procedures will be performed? Check all that apply:

# Withholding of food Duration:

# Withholding or water Duration:

# Antibiotic/analgesic/therapeutic/fluid administration

# Application of sterile eye lubricant/ointment

# Clipping/shaving of surgical site

# Surgical scrub (iodine/chlorhexidine scrub followed by alcohol rinse repeated 3 times)

# Other

# Please describe:

## **Section 16 Surgical Care**

# Describe the frequency and method of monitoring the depth pf anesthesia:

# Method used to ensure maintenance of normal body temperature if needed:

# Heat lamp

# Warm water blanket

# Heating pad

# Other

# Please describe:

# How will aseptic technique be maintained throughout the surgical procedure? Check all that apply:

# Clean dedicated lab coat

# Sterile drapes

# Sterile surgical gown

# Cap

# Mask

# Sterile surgical gloves

# Sterile staples/wound clips

# Sterile catheters

# Autoclave

# Hot bead sterilant

# Cold chemical sterilant Type used: \_\_\_\_\_\_\_\_\_\_\_ Contact time: \_\_\_\_\_\_\_\_\_\_\_

# Plasma hydrogen peroxide

# Sterile when purchased

# Other

# Please describe:

# Will surgery be performed on multiple animals during the same surgical session?

# **Yes** **No**

How will instruments and materials be managed to assure sterility for each surgery?

# New instruments and materials for each animal Items resterilized between surgeries

# Autoclave

# Hot bead sterilizer

# Cold chemical sterilant Type used: \_\_\_\_\_\_\_\_\_\_\_\_ Contact time: \_\_\_\_\_\_\_\_\_\_\_

# Plasma hydrogen peroxide

# Other

# Please describe:

(to add another drug, mouse over any area, click in the grey box, then click the blue “+” sign)

|  |  |  |  |
| --- | --- | --- | --- |
| **Drug** | **Dosage** | **Frequency** | **Purpose** |
|  |  |  |  |

## **Section 17 Post-operative procedures / care**

# Will analgesics be used for the surgery describe in this protocol?

# **Yes** **No**

# Please provide scientific justification for the lack of analgesics:

# Describe the plan for post operative monitoring of animals, individual(s) responsible for monitoring, including after-hours, weekend and holiday care. Include analgesic administration schedule. If the plan is to give “as needed”, describe the clinical signs of pain and discomfort that will warrant the administration of analgesics:

# Will any post-operative drug/antibiotics/fluids be administered?

# **Yes** **No**

# Any drugs or chemicals used in surgery should be listed in the drugs and chemicals section.

# Describe any post operative nursing and supportive care of animals (e.g. moistened or special feed, flow feeding, heat or cold therapy, etc.):

# After how many days will external sutures/clips be removed?

List all possible operative drugs and chemicals.

(to add another drug, mouse over any area, click in the grey box, then click the blue “+” sign)

|  |  |  |  |
| --- | --- | --- | --- |
| **Drug** | **Dosage** | **Frequency** | **Purpose** |
|  |  |  |  |

## **Section 18 Biological Agents**

# Biological Agents are potentially biohazardous for humans, animals, or plants (including pathogens/infectious material and those with environmental or agricultural impacts); Recombinant or Synthetic Nucleic Acids (r/sNA), Gene Drive Modified Organisms (GDMO); Genetically Modified Organisms (GMO); Gene D Biological Select Agents and Toxins (BSAT, as defined by the Federal Select Agent Program); human and primate blood, blood products, body fluids, cell lines, cells and tissues; and/or agents/materials that require federal permits.

# Will animals in this protocol be subjected to treatment with biological agents that are considered potentially biohazardous to humans, animals, or the environment as defined by A&M-SA IACUC?

Yes No

(to add another Biological Agent/Organism, mouse over any area, click in the grey box, then click the blue “+” sign)

|  |  |  |  |
| --- | --- | --- | --- |
| **Biological Agent/Organism** | **Biosafety Level** | **IBC#** | **Altered Agent** |
|  |  |  | Yes  No |

Please describe the effects of administering the altered agent on animal welfare:

## **Section 19 Genetically Altered Animals**

# The use of creation of genetically altered animals fall under the NIH guidelines and will need A&M-SA IACUC approval. This includes animals subject to recombinant or synthetic nucleic acid molecules, either heritable or inheritable.

# Will animals in this protocol be subjected to treatment with r/sNA molecules that may or may not result in heritable changes (i.e. the use of vectors to modify gene expression siRNA, humanized mice) or/ and will you use a genetically altered animal or have one created for you?

# Yes No

# Please describe how pain, distress, adverse events, or animal welfare issues associated with this species/line will be monitored and addressed? Include clinical signs, frequency of monitoring (after hours/weekends/holidays), veterinary care intervention and treatments, and humane endpoints. (Note: All such animals should be included under “D” or “E” class).

# Will the new genetically altered animal be created at A&M-SA?

# Yes No

# Please provide IBC #

# 

For genetically altered food animals, please provide FDA investigational new animal drug (INAD) file number.

## **Section 20 Radioactive Material**

# Will this protocol involve the use of radionuclides or radiation on animals?

# Yes No

# Has the radioactive source, employee radiation safety training, radiation machines (i.e. x-ray units) been reviewed and approved by the A&M-SA Radiation Safety Office?

# Yes No

# Please provide RSO approval date:

Month/day/year

# Are any adverse animal events anticipated?

# Yes No

# Please explain:

## **Section 21 Method of Animal Disposition**

Released into the wild in accordance with the applicable permit and regulations

Euthanasia **All chemicals and drugs used in Euthanasia MUST be listed in the drugs and chemicals section.**

Select all that apply.

Pentobarbital overdose/Commercial euthanasia solution (e.g. Euthanasia, etc.)

**Select the method used to confirm death:**

Cervical dislocation

Creation of pneumothorax

Potassium chloride administration

Exsanguination

Decapitation

Other

Inhalant anesthetic overdose

**Select the method used to confirm death:**

Cervical dislocation

Creation of pneumothorax

Potassium chloride administration

Exsanguination

Decapitation

Other

Other general anesthesia

**Select the method used to confirm death:**

Cervical dislocation

Creation of pneumothorax

Potassium chloride administration

Exsanguination

Decapitation

Other

Carbon dioxide (bottled gas only)

**Select the method used to confirm death:**

Cervical dislocation

Creation of pneumothorax

Potassium chloride administration

Exsanguination

Decapitation

Other

Double pithing (amphibians) Note: requires anesthesia

MS-222 (fish, amphibians) Note: mixing should only be performed using respiratory protection

How is the solution buffered?:

Please describe the secondary method used to confirm death:

Ice bath (small tropical fish only)

Please describe the secondary method used to confirm death:

Decapitation without anesthesia

Justification and Training:

Cervical dislocation without anesthesia

Justification and Training:

Thoracic compression

Please describe and procedure:

Other Euthanasia Method

Please explain:

Justification and Training:

**Carcass Disposition**

Incineration at incinerator facility

Necropsy and testing

Composting

Other

Please provide details: