University of Texas Permian Basin
Institutional Animal Care and Use Committee
APPLICATION TO USE VERTEBRATE ANIMALS IN RESEARCH OR TEACHING

All IACUC applications must be submitted by email as a MS Word Document to iacuc@utpb.edu Further information can be found on the IACUC webpage or by contacting the IACUC Chair at (432) 552-3340.PART I – GENERAL INFORMATION

☐ **NEW** ☐ **RENEWAL** ☐ **AMENDMENT**

Renewal of Protocol Number	

Any information in this protocol may be included (as written) with the Annual USDA report, as required by the USDA.

Occupational Health Enrollment and Training

The UTPB Institutional Animal Care and Use Committee (IACUC) has mandated that everyone working on an animal-use protocol under the auspices of our IACUC must complete the 'Animal User Training Program' that is detailed here.

A. TITLE OF PROJECT

B. PRINCIPAL INVESTIGATOR

The PI must be a member of the UTPB faculty who agrees to assume responsibility for this protocol and the proper use of animals in research as proposed in this application

NAME:		**TITLE:**	
DEPARTMENT:		**PHONE NUMBER:**	
E-MAIL:		**EMERGENCY NUMBER:**	

C. CO-INVESTIGATORS

If any Co-I is not a member of the UTPB faculty, include title and affiliated organization. If a non-UTPB Co-I will conduct procedures on animals at UTPB, they will need to complete all required training before being allowed to perform the proposed procedures on animals.

Copy and paste this section if additional Co-Investigators need to be listed.

NAME:		**TITLE:**	
DEPARTMENT:		**PHONE NUMBER:**	
E-MAIL:		**EMERGENCY NUMBER:**	
AFFILIATION:		**ROLE ON PROJECT:**	

D. PERSONNEL

Complete the following table for <u>all</u> individuals, including the PI, who will be performing experimental manipulations of the animals (add additional rows below as needed).

The PI is responsible for ensuring that their employees and students are adequately trained in the specifics of their tasks – <u>all training must be documented.</u>

<u>All personnel listed below must complete all training requirements prior to the release of IACUC Approval.</u>

					PROCEDURES TO BE PERFORMED										
Name, Title	UTPB I.D.	Relevant Degree or Certification	Species working with	Mandatory Training complete	Non-Invasive Activity (including injections)	Anesthesia	Euthanasia	Sample Collection	Surgery (Survival)	Surgery (Non-Survival)	Surgical Assistance	Assess Humane Endpoints	Husbandry	Other (*explain below)
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
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				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

*** Describe any other procedure not listed in the table:**

E. SPECIAL INSTRUCTIONS IN CASE OF AN EMERGENCY

Do you have any special instructions concerning animal care practices or prohibitions in emergency situations involving animals under this protocol?

☐	**NO –** The veterinary staff has my permission to use professional judgement.
☐	**YES –** The following special instructions are to be followed for emergency animal care.

If YES please provide special instructions:

Read the statement below, by checking the box you agree to abide by the statement.

I understand that in cases of necessary medical treatment regardless of whether the condition is protocol-related or not, the University Veterinarian (UV) is authorized to provide the treatment required to sustain life. If that is not possible or if euthanasia is warranted, the UV is authorized to prevent further distress and pain that is not justified in an approved protocol, by euthanasia. I understand that the veterinary staff will contact me as soon as possible using the emergency contact information that I provide in this application, but I also understand that such contact may not always be possible prior to providing treatment or performing euthanasia.

I will notify the Attending Veterinarian when unanticipated pain or distress, unexpected morbidity, or unanticipated mortality occurs with animals approved for use under this protocol ☐ **YES**

F. SOURCES OF FUNDING FOR THIS PROTOCOL

If more than one source of funding provide information on all.

SPONSORING AGENCY:	
GRANT / PROPOSAL NUMBER:	
TITLE(S) ON GRANT:	
UTPB COST CENTER / PROJECT I.D.:	

PLEASE ATTACH THE VERTEBRATE ANIMAL SECTION (VAS) OR EQUIVALENT FOR EACH NIH or NSF FUNDING SOURCE.

OTHER SOURCES OF FUNDING:	

G. TYPE OF ANIMAL PROTOCOL (CHECK ALL THAT APPLY)

☐ **Holding / Special**
☐ **Research or Testing** (includes breeding or field studies with collection of biological samples)
☐ **Sentinel**
☐ **Teaching or Training**
☐ **Wildlife Observation** can include non-invasive collection of biological samples from environment.

For Wildlife Studies: If the study involves the handling of animals at any point the "Research or Testing" checkbox must also be checked. All Wildlife Studies involving animal handling must complete the following sections with all applicable information:

- ☐ **PARTs I – IV**
- ☐ **PART VI-VIII**
- ☐ **PART XIV-XV**

PART II – LAY DESCRIPTION

Using non-scientific and non-technical language briefly describe the project (this section should be written so that it can be understood by someone with no scientific background). Do not cut and paste from a grant:

1. **The purpose of this study**

2. **What will be done to the animals in general terms?**

3. **What is / are the expected outcome(s) of the study?**

4. **How the project will benefit science, medicine, animals or society?**

PART III – ANIMALS TO BE USED

A. ANIMAL TYPE AND SOURCE

Copy and paste this section for each additional species needed. Do not list individual strains.

GENUS AND SPECIES
COMMON NAME
GROUP NAME (IF APPLICABLE)
SOURCE (check all that apply)
☐ Approved vendors (Charles River, Envigo (formerly Harlan), Jackson Labs, Taconic, Mutant Mouse Resource & Research Centers – MMRRC, Rat Resource & Research Center - RRRC)
☐ In-house breeding
☐ Wild or free ranging
☐ Other (specify)

1. **Please disclose any known health / husbandry issues associated with any strains in this study. List the strain, source and issue in detail below:**

B. QUANTIFICATION OF ANIMALS REQUESTED

Insert additional rows to the table if required.

Check all applicable classifications. Indicate the number of animals to be used in each applicable category. Refer to *Definitions and Examples of USDA Pain Categories* for assistance.

NOTE: - For USDA category D and E studies consult with the Attending Veterinarian mperret1@gmail.com before protocol submission. Please consult with the UV at least 1 week prior to submission of the protocol for review.

List the animals requested for use, including the Use Category for each, and the number that will be used over the **3 year period** in the column corresponding to the source of animals. Use a separate line for each use category and species.

Genus and Species (do not list individual strains)	USDA CATEGORY (B-E) (one per line). For Cat. E studies justify below*	Number transferred from another protocol	Number purchased or received from another institution	Number bred in-house (include born but not used)	Other (donated, wildlife etc)	TOTAL
					Overall Animal Total	

Justify all Category E studies below:

***If painful/distressful procedures are planned for which appropriate analgesia/sedation and/or other methods cannot be provided (USDA Category E), that choice must be justified.**

C. IN-HOUSE BREEDING (COMPLETE ONLY IF BREEDING ANIMALS AT UTPB)

Complete PART XII

Species	# of Breeders		Expected # of Usable Offspring	Total # of Animals (Breeders + Offspring)	Number of Animals Born but not used on this protocol
	Male	Female			

PART IV – JUSTIFICATION

A. JUSTIFY THE USE OF LIVE ANIMALS

1. **Provide scientific justification for the use of the species described in this protocol.**

B. LITERATURE SEARCH

For your attempts to reduce, refine or replace (the "3R's") the use of animals, and to avoid unnecessary duplication of previous experiments, a Literature Search is required under Section 2.31 (d)(1)(ii) of the Animal Welfare Act and Policy 12 of the USDA Animal Care and Resource Guide. This search should help you answer the following questions. Particular attention should be paid to the answers given later in this section, remembering that the purpose of this section is to document your efforts to address the 3R's. (Example: use of an *in vitro* system to replace the ascites model to produce monoclonal antibodies)

1. **Date the literature search was performed**:

2. **Years covered by the search (search should cover entire life span of the research field, depending on the study. 3 year renewals need only cover the years between the original application and the renewal)**

3. **Keywords used in the search (include scientifically relevant terminology and combinations using AND, OR, NOT**

4. **Databases searched (check all that apply). All USDA category D and E studies require a minimum of two database searches.**

- ☐ PubMed
- ☐ Web of Science
- ☐ ScienceDirect
- ☐ Google Scholar
- ☐ Biological Abstracts
- ☐ AGRICOLA Data Base
- ☐ Toxline
- ☐ Other – including a Subject Matter Expert (specify below)

Discuss how your literature search addresses the 3 Rs (Reduce, Refine, Replace the use of animals)
https://awic.nal.usda.gov/alternatives/3rs

5. **REDUCE: Does the proposed study duplicate previous experiments?**

- ☐ YES
- ☐ NO

If YES, please explain your answer.

6. **REDUCE: Has the number of animals in the study been reduced to the fewest needed to obtain statistically significant data?**

☐ **YES**
☐ **NO**

If NO, please explain your answer.

7. **REFINE: Do the procedures proposed in this protocol have any potential to cause pain, distress or discomfort to the animals (above and beyond routine handling, injections etc.)?**

☐ **YES**
☐ **NO**

If YES, please explain your answer.

8. **REPLACE: Could mathematical and / or computer models, and / or *in vitro* systems, such as tissue culture, be used to reduce the number of animals requested in this proposal?**

☐ **YES**
☐ **NO**

Please explain your answer.

C. EXPERIMENTAL JUSTIFICATION OF THE NUMBER OF ANIMALS REQUESTED

Complete this table for <u>each procedure / experimental activity / experimental group</u>. Copy and paste this table for each separate procedure and species.

<u>Ensure all numbers here correspond with the table in Part IIIB</u>

DESCRIBE THE PROCEDURE / EXPERIMENTAL ACTIVITY / EXPERIMENTAL GROUP	
SPECIES	**NUMBER OF ANIMALS**

1. Provide information on how the number of animals per group was determined (check all that apply)

	Pilot or preliminary project, group variances unknown at present (explain and justify your answer).
	Group sizes determined statistically. What statistical analysis was performed and what parameters were used?
	Group sizes based on quantity of harvested cells or amount of tissue required. Describe how the quantity of cells or tissue needed led to the number of animals needed.
	Group sizes based on observations in the wild. Describe how population size and local conditions led to determination of the number of animals needed.
	Other. Please describe the criteria used to determine the group size.

PART V – LABORATORY ANIMAL MANAGEMENT

Do not complete for field studies

A. HOUSING REQUIRED

1. Will animals be housed or used at a facility other than UTPB?

☐ YES
☐ NO

If YES, please provide the location.

2. Will standard housing be used?

(Select all that apply) (Examples of standard housing include LARC approved caging equipment, following standard cage change frequencies, or up to 5 mice / cage and cages changed every 2 weeks, Rats (up to 2/cage) and changed weekly. Caging style, housing densities and cage change frequencies are species dependent. Consult LARC for more information)

☐ YES
☐ NO

☐ GROUP
☐ SINGLE

If both group and single options are selected, please explain and give details.

☐ CONVENTIONAL
☐ BSL-2

☐ SPF
☐ BSL-3

3. Will non-standard housing be used?

Select all that apply) (Examples of non-standard housing may include metabolic cages, cage change frequencies outside Guide standards, or rodent static cages are required among others. Please consult with the Attending Veterinarian to discuss your housing needs).

☐ YES
☐ NO

☐ GROUP
☐ SINGLE

If YES was selected, please explain.

☐ CONVENTIONAL
☐ BSL-2

☐ SPF
☐ BSL-3

Briefly explain your housing needs.

Have your specialized housing needs been discussed with the LARC (x6692)?

☐ YES
☐ NO

If YES, please provide the LARC contact with whom housing was discussed.

4. **If "single-housing" was selected in either section 2 or 3 please describe why single housing is required and provide a scientific justification:**

B. NUTRITION

1. **Will you be feeding the LARC standard diet for the species?**

☐ YES
☐ NO

If NO, please provide details and a scientific justification.

2. **Feeding schedule:**

☐ Ad Lib
☐ Other

If OTHER, please provide a description and scientific justification.

3. **Will animals have reduced or restricted feeding?**

☐ YES
☐ NO

If YES, please provide a description and scientific justification.

4. **Will animals have reduced or restricted watering?**

☐ YES
☐ NO

If YES, please provide a description and scientific justification.

C. CAGE CHANGING / SANITIZING FREQUENCY

1. **Will you be using the Guide standard cage change frequency for this species?**

☐ YES
☐ NO

If NO, please provide requirements and justification for a non-routine sanitizing procedure.

PART VI – PROCEDURES

A. GENERAL PROCEDURES

1. **Provide a general overview or list of the procedures and manipulations (such as injections, manipulations, tests, etc.) that will be performed. Avoid giving detailed information on procedures described elsewhere.**

2. **Provide a check against all of the following that will be used in this project:**

	ACTIVITY	
☐	Biohazards (Infectious Agents)	
☐	Recombinant or synthetic nucleic acids	
☐	Radioactive Materials	
☐	Sources of radiation, including lasers	
☐	Chemical Carcinogens	
☐	Drugs / Chemicals	
☐	Toxins	
☐	Other (explain):	
☐	Physical Restraint	

3. **Please check if you will be carrying out the following activities and complete and attach the relevant appendix:**

YES	NO	ACTIVITY	APPENDIX
☐	☐	*In vivo* Maintenance of Hybridomas / Ascites Formation	Appendix A
☐	☐	Creation of Transgenic / Knockout Animals at UTPB	Appendix B

4. **Provide the building and room numbers where all procedures will take place:**

PART VII – INFECTIOUS AGENTS, RECOMBINANT OR SYNTHETIC NUCLEIC ACIDS, DRUGS, COMPOUNDS, HAZARDOUS CHEMICALS OR RADIOACTIVE MATERIALS.

A. INFECTIOUS AGENTS, RECOMBINANT ORGANISMS, RECOMBINANT OR SYNTHETIC NUCLEIC ACIDS.

☐ **NOT APPLICABLE**

1. **Please provide the following information if you are administering infectious agents / recombinant organisms / recombinant or synthetic nucleic acids to live animals (add additional rows to the table if necessary).**

Infectious Agent, Recombinant Organism, Recombinant or Synthetic Nucleic Acid.	Dose, Volume and Vehicle	Route of Administration	Frequency of Dose	Length of time animals will be maintained after exposure	Anticipated effects and methods taken to ameliorate

2. **If you are working with recombinant agents or recombinant / synthetic nucleic acids has an application been submitted to the office of Environmental Health and Safety for review?** (work with recombinant agents or recombinant / synthetic nucleic acids cannot proceed without approval).

☐ **YES**
☐ **NO**

IBC Protocol Number:

3. **Describe the safe handling of animals infected with biological agents. Address personal protective equipment (P.P.E) needed, equipment and procedures to be followed for the following:**

a) Research Staff conducting animal procedures:
b) Animal Husbandry Staff (describe any additional procedures or equipment required to protect personnel servicing animals and soiled products during routine cage changes)

4. **How long will the agent be excreted in urine or feces (if at all)?**

B. RADIOACTIVE MATERIALS AND SOURCES OF RADIATION (INCLUDING LASERS)

☐ **NOT APPLICABLE**

1. **Please provide the following information if you are administering radioactive isotopes or other sources of radiation, including lasers, to live animals (add additional rows to the table if necessary):**

Radioactive Isotope / Source of Radiation / Laser	Dose, Volume and Vehicle	Route of Administration	Frequency of Dose	Length of time animals will be maintained after exposure	Anticipated effects and methods taken to ameliorate

2. **If you are administering radioactive materials or using a source of radiation / laser has an application been made to the office of Environmental Health and Safety for review?**

☐ **YES**
☐ **NO**

3. **Describe the safe handling of animals exposed to radiation. Address personal protective equipment (P.P.E) needed, equipment and procedures to be followed for the following:**

a) Research Staff conducting animal procedures:
b) Animal Husbandry Staff (describe any additional procedures or equipment required to protect personnel servicing animals and soiled products during routine cage changes)

4. **How long will the radioactive material be excreted in urine or feces (if at all)?**

C. CHEMICAL AGENTS / COMPOUNDS / CARCINOGENS / DRUGS AND TOXINS

☐ **NOT APPLICABLE**

1. **Please provide the following information <u>if you are administering chemical agents / compounds / carcinogens / drugs or toxins to live animals</u> (add additional rows to the table if required).** Do not include chemical agents used in euthanasia or anesthesia in this section these will be addressed later in the application.

Chemical agent / compound / carcinogen / drug / toxin and source	Dose, Volume and Vehicle	Route of Administration	Frequency of Dose	Length of time animals will be maintained after exposure	Anticipated effects and methods taken to ameliorate

2. **Describe the safe handling of animals exposed to chemical agents / compounds / carcinogens / drugs / toxins. Address personal protective equipment (P.P.E) needed, equipment and procedures to be followed for the following:**

a) Research Staff conducting animal procedures:
b) Animal Husbandry Staff (describe any additional procedures or equipment required to protect personnel servicing animals and soiled products during routine cage changes)

3. **How long will the agent be excreted in urine or feces (if at all)?**

D. PARALYTICS

☐ **NOT APPLICABLE**

1. Will paralytic agents be used in the study?

☐ **YES**
☐ **NO**

2. If YES, please provide the names of the agents to be used, the dose and route of administration and the justification for their use:

Paralytic Agent	Dose, Volume and Vehicle	Route of Administration	Frequency of Dose	Length of time animals will be maintained after exposure	Justification

3. How will the surgical plane of anesthesia be determined (select all that apply):

☐ **Lack of response to a vigorous rear toe pinch (absence of pedal reflex)**
☐ **Other***

*** If OTHER, was selected please describe:**

E. NON-PHARMACEUTICAL GRADE COMPOUNDS

☐ **NOT APPLICABLE**

1. **Source of the non-pharmaceutical grade compound:**

2. **QA: Describe the preparation, storage and stability, shelf life, sterility and pyrogenicity of the compound:**

3. **What is the schedule of monitoring of animals that allows detection of adverse effects such as reactions, infections, behavioral changes, etc.?**

4. **Is an equivalent (or similar) pharmaceutical grade compound is available and, if so, justify the use of a non-pharmaceutical grade compound.**

F. PHYSICAL RESTRAINT

Complete question 1 if you are using **any** physical restraint on non-anesthetized animals regardless of the length of the period of restraint.

'Restraint' is defined as the use of manual or mechanical means to limit some or all of an animal's normal movement for the purpose of examination, collection of samples, drug administration, therapy or experimental manipulation.

1. **Describe the method of physical restraint proposed:**

For restraint lasting 15 minutes or longer please complete questions 2 – 7.

2. **Describe any alternatives to the method of restraint proposed:**

3. **What is the scientific rationale for the use of the proposed method of restraint?**

4. **What methods of positive reinforcement will be used to help animals adapt to the restraint device?**

5. **Describe the observations that will be made of the animal while it is in restraint:**

6. **Discuss the criteria for removing animals that fail to adapt to restraint:**

7. **Describe the training personnel will receive on the use of the restraint device:**

PART VIII –ENDPOINTS AND ANIMAL DISPOSITION

A. EXPERIMENTAL AND HUMANE ENDPOINTS

1. Define your experimental endpoints:

2. Define the humane endpoints:

3. What is the appropriate frequency of observation for the expected clinical signs?

4. Describe the training personnel will receive to identify when the pertinent endpoints are received:

5. What will be the response / actions when the endpoints are reached?

B. ANIMAL DISPOSITION

1. What will you do with the animals at the end of the study? (Please check all that apply):

- ☐ Animals will be euthanized (complete PART VIII Section C 3, 4 and 5 below).
- ☐ Animals will be made available to other investigators.
- ☐ Animals will be made available for adoption, appropriate adoption procedures must be followed. For adoption procedures please contact the Attending Veterinarian
- ☐ For field studies in which animals are captured – Animals will be released into their natural environment at or near the point of capture.
- ☐ Other:

2. If you have selected "Other", please describe and justify:

C. EUTHANASIA

1. Describe the method of euthanasia that will be used:

2. If a chemical agent will be used to achieve euthanasia please complete the following table (note anesthetics such as isoflurane are not agents of euthanasia):

Agent / Method	Dosage	Route

3. **If CO_2 is to be used to euthanize animals, a secondary physical method (e.g. cervical dislocation, bilateral thoracotomy, decapitation or exsanguination) must be used to assure the death of the animal. Please state the secondary method to be used (secondary physical methods are strongly recommended for all other methods of euthanasia):**

PART IX – COLLECTION OF BODY FLUIDS AND TISSUES FROM LIVING ANIMALS (OTHER THAN ASCITES)

☐ **NOT APPLICABLE**

1. Please provide the following information:

Fluid or Tissue to be collected	Frequency of collection	Volume or Weight	Method and site of collection

2. Will the animal be anesthetized or sedated during this procedure?

☐ **YES***
☐ **NO****

***If YES, please provide the following information:**

Name of anesthetic agent or sedative	Dosage	Route of administration	Total volume or flow rate of the agent and carrier

****If NO, provide the reason for withholding anesthesia / sedation:**

PART X – ANTIBODY PRODUCTION FOR DIAGNOSTIC TESTS (RABBITS AND RODENTS)

☐ **NOT APPLICABLE**

1. **Indicate what antigen(s) will be used:**

2. **Indicate what vehicle / adjuvant(s) will be used:**

a) For the initial immunization:

b) For subsequent immunizations:

c) Discuss the potential complications / anticipated side effects, and actions to be taken to ameliorate pain and distress.

3. **Describe the Immunization(s) including:**

a) The site(s) for immunizations:

b) The route of immunization:

c) Total and per site injection volumes:

d) Frequency of immunization:

PART XI – MANAGEMENT OF NON-SURGICAL PAIN AND DISTRESS

Use PART XII to discuss potential pain involved with surgical procedures.

☐ **NOT APPLICABLE**

1. **Will animals experience distress, discomfort, suffering or pain as a result of any procedure? (**Routine procedures such as injections or limited blood sampling do not need to be reported. Euthanasia is described in PART VIII C).

☐ **YES**
☐ **NO**

If YES, please list those procedures that could potentially cause distress, discomfort or pain to the animals at any point during the study. The procedures listed should be included as keywords in the literature search. Anthropomorphism is the regulatory standard to use in determining this potential (if it is painful to humans, it is considered painful to animals unless proven otherwise).

2. **Will anesthetic, analgesic or tranquilizing drugs be used to relieve potential pain or distress?**

☐ **YES***
☐ **NO****

***If YES, give details:**

Drug	Dosage	Route	Frequency

****If NO, - please justify this choice:** (the proposed study involves potential distress, discomfort, suffering, or pain however anesthetic, analgesic, or tranquilizing drugs are to be withheld.)

3. **Detail the frequency with which animals will be monitored during the procedure and after the procedure:**

4. **What measures will be used to minimize discomfort, distress, pain or suffering?** (i.e. fluids, warming pads, soft bedding, making food more accessible, etc)

5. **Will animals be euthanized if moribund / severely debilitated?**

☐ **YES**
☐ **NO**

If YES, indicate the criteria used for removing an animal from the study. For example loss of mobility, weight loss greater than 10%, tumor size greater than 1cm^3, etc...

If NO, please justify. This includes studies that require death to be used as the endpoint.

PART XII – SURGERY, MAJOR OR MINOR

☐ **NOT APPLICABLE**

A. ANESTHESIA AND POST OPERATIVE CARE

1. List all anesthetics, analgesics or tranquilizing drugs used during each procedure:

ANESTHETIC	DOSE	ROUTE OF ADMINISTRATION	FREQUENCY OF ADMINISTRATION
ANALGESIC / TRANQUILIZING DRUG	**DOSE**	**ROUTE OF ADMINISTRATION**	**FREQUENCY OF ADMINISTRATION**

2. Will neuromuscular blocking agents be used during anesthesia?

☐ **YES**
☐ **NO**

If YES, provide justification and criteria for gauging depth of anesthesia while neuromuscular blockade is in effect.

3. If pre-emptive analgesics will not be used please justify this decision?

☐ **NOT APPLICABLE – NON SURVIVAL SURGERY**

4. Describe the post-operative care (i.e. monitoring, analgesics, fluids, oxygen, heating pads, etc.):

B. SURGERY DESCRIPTION

Please note that some non-survival surgeries may require the use of aseptic techniques depending on experimental objectives and length of procedure, the UV will advise in these cases.

1. Will non-survival practice animals be used to train individuals prior to conducting surgical procedures?

☐ **YES**
☐ **NO**

If NO, please justify:

2. Where will surgeries be performed? Provide building and room number.

3. **Will there be multiple or staged survival surgical procedures performed on any <u>one</u> animal?**

☐ **YES**
☐ **NO**

If YES, explain your answer and justify:

4. **Describe how surgical instruments will be sterilized:**

☐ **NOT APPLICABLE – NON SURVIVAL SURGERY**

5. **Describe how other materials (implants, catheters, electrodes, cannulas, etc.) used in surgery are sterilized:**

☐ **NOT APPLICABLE – NON SURVIVAL SURGERY**

6. **Explain how the animal(s) body temperature will be maintained during the peri-operative period (pre, intra and immediate post-operative).**

7. **Ophthalmic eye ointment (<u>not</u> drops, petroleum jelly, mineral oil) will be applied to eyes immediately upon induction of anesthesia:**

☐ **YES**
☐ **NO**
☐ **NOT APPLICABLE –NON SURVIVAL SURGERY**

If NO, explain your answer:

8. **Pre-op fluids will be administered with sterile saline or lactated Ringer's solution IP or SC to mice or rats (0.5-1.0 ml for adult mice and 5-10 ml for adult rats).**

☐ **YES**
☐ **NO**
☐ **NOT APPLICABLE – NON SURVIVAL SURGERY**

If NO, explain your answer:

9. **Will the surgical field be scrubbed with surgical SCRUB (chlorhexidine [preferred] or povidone iodine) followed by 70% alcohol wipe? This alternating, SCRUB and alcohol application is repeated at least 2 more times. After the last alcohol application, surgical SOLUTION (not SCRUB) (chlorhexidine [preferred] or povidone iodine) will be applied and allowed to dry on the skin.**

☐ **YES**
☐ **NO**
☐ **NOT APPLICABLE –NON SURVIVAL SURGERY**

If NO, explain your answer:

10. Hair will be removed from the surgical site with:

- ☐ **Hair Clippers**
- ☐ **Depilatory Cream.** Removed 45-60 secs after application with alcohol or water to prevent irritation
- ☐ **OTHER**

If OTHER, explain your answer:

11. Describe the location and approximate length of the incision:

12. Provide details on the following:

Suture Material:	
Suture Pattern:	
Suture Removal:	

☐ **NOT APPLICABLE – NON SURVIVAL SURGERY**

13. The following will be worn:

YES	NO	
		Sterile Surgical Gloves
		Face Mask
		Hair Cover
		Gown
		Plastic sleeves, sprayed with disinfectant, over the forearm

If NO, explain your answer:

☐ **NOT APPLICABLE – NON SURVIVAL SURGERY**

14. Will a sterile drape will be applied to the surgical field:

- ☐ **YES**
- ☐ **NO**
- ☐ **NOT APPLICABLE – NON SURVIVAL SURGERY**

If NO, explain your answer:
If YES, describe the type of sterile drape used to cover the surgical field:

15. Before making the incision, surgical anesthesia is verified by the absence of a vigorous rear toe pinch reflex.

- ☐ **YES**
- ☐ **NO**

If NO or an additional or different method is used, explain your answer:

16. Non sterile instrumentation (e.g. stereotaxic devices, switches, surgical lamps etc.) that need to be manipulated during surgery will be covered with sterile material such as Tegaderm, Press'n Seal or autoclaved aluminum foil (preferred) or will at least be disinfected.

☐ YES
☐ NO
☐ NOT APPLICABLE – NON SURVIVAL SURGERY

If NO, explain your answer:

Disinfectants used:

☐ SporKlenz
☐ Virkon-S
☐ MB-10
☐ Cavicide
☐ Other (Please specify below)

17. Provide a brief overview of the surgical aims and process. Give details to include, but not exclusively restricted to: target organs and tissues, the surgical techniques used to achieve the aims, any tissues removed, and any tissue manipulations (for example cauterization, ablation etc.), any implants or drugs administered to the target organs and tissues:

C. BATCH SURGERIES

☐ NOT APPLICABLE

1. If batch (serial) surgeries will be conducted with the same instruments, fill in the sections below, otherwise leave blank.

a) A maximum of 5 animals will undergo surgery with the same initial set of sterile instruments.

☐ YES
☐ NO

If NO, explain your answer:

b) Sterile surgical gloves and sterile drapes will be replaced with each surgery.

☐ YES
☐ NO

If NO, explain your answer:

c) Between animals instruments will be cleaned with alcohol or sterile water and the tips of the instruments placed in a glass bead sterilizer with a temperature of at least 250°C for at least 60 seconds.

☐ YES
☐ NO

If NO, explain your answer:

PART XIII – BREEDING OF RESEARCH ANIMALS

☐ **NOT APPLICABLE**

Complete the table in PART IIIC

1. **Justification for in-house breeding:**

a) **Could animals, that will be bred, be purchased from commercial sources in the required numbers?**

☐ **YES**
☐ **NO**

If YES, please describe the rationale for breeding these animals at UTPB:

2. **Please identify the source of breeders:**

☐ **Colony managed by a UTPB investigator.**

Specify the Investigator's name and source protocol number:

☐ **Obtained from another institution or non-UTPB investigator.**

Identify the source:

☐ **Purchased from a LARC approved vendor** (list of approved vendors).

Identify the vendor:

3. **Select all that apply:**

☐ **Breeding scheme will be monogamous, non-continuous scheme.**
☐ **Breeding scheme will be OTHER THAN monogamous, non-continuous scheme***

4. **If other than a monogamous, non-continuous scheme will be followed indicate how overcrowding will be prevented:**

☐ **Dam will be isolated until pups are weaned**
☐ **Other***

***If OTHER was selected please explain below:**

5. **Select all that apply:**

☐ **Offspring will be weaned at 18-21 days of age.**
☐ **Offspring will be weaned at times other that 18-21 days of age.***

*Please justify:

6. Special care (feed, water, temperature, humidity, air flow) required for this breeding colony:

☐ **No special care is required.**

☐ **Special care is necessary to keep these animals healthy.**

Describe the required special care:

PART XIV – PERMITS AND AUTHORIZATIONS – FIELD STUDIES

☐ **NOT APPLICABLE**

Please provide the following information for each local, regional, or national permit or other authorization required for the observation, capture, transportation, data collection, shipping of biological samples, or other proposed activity involving wild animals. (If agency approval has not yet been obtained, indicate "Pending" for date of approval and submit the required information when obtained).

Name of Agency:	
Mailing Address:	
Phone Number:	
E-mail:	
Contact Person:	
Permit / Authorization:	
Date of Approval:	
Duration of Approval:	
Notes to the IACUC Office:	

PART XV – CERTIFICATIONS

A. PRINCIPAL INVESTIGATOR CERTIFICATIONS

- **Does the protocol include work to be completed internationally?**

☐ **YES**
☐ **NO**

If **YES**, I certify that:

- Full and appropriate training and oversight will be provided to all non-UTPB participants.
- I and collaborating UTPB personnel will abide by all requirements of the host country for conducting research, including the acquisition and maintenance of all required permits. If biological samples are to be shipped back to the US for analysis, import permits from the appropriate US governmental agency(ies) will be obtain prior to shipment of samples. Copies of all permits mentioned above will be provided to the IACUC office as soon as they are received.

I agree with the above statements ☐

Read the statements below and check if you are in agreement:

I will conduct the project in accordance with the PHS Policy, USDA regulations (9 CFR Parts 1, 2, 3), the Guide for the Care and Use of Laboratory Animals, UTPB's Animal Welfare Assurance with OLAW and/or other applicable guidelines or regulations.

I certify that this protocol represents my best efforts to reduce animal numbers, minimize pain and distress, and consider, if available, non-animal alternatives.

I have determined that the research proposed is not unnecessarily duplicative.

I certify that any and all painful/distressful procedures will be limited to the minimum time necessary to meet the objectives of the research and if an animal experiences severe or chronic pain or distress that cannot be alleviated, it will be euthanized at the end of the procedure, or if necessary, euthanized immediately.

I authorize individuals listed on this application to conduct specified procedures involving animals and I accept responsibility for training and supervising them in the conduct of those procedures.

I understand that this application will not be approved by the IACUC until all individuals listed on this application (including myself) enroll in the Occupational Health Program (OHP - employees) or Student Medical Surveillance Initiative (SMSI – unpaid students or volunteers).

I understand that the protocol will not be approved until all required training in the areas relevant to the assigned work with animals has been completed. I understand such relevant areas include: biology, handling, and care of the species used; aseptic surgical methods and techniques (if applicable); the concept, availability, and use of research or testing methods that limit the use of animals or minimize their pain or distress; the proper use of anesthetics, analgesics, and tranquilizers; and procedures for reporting animal welfare concerns. I will train all personnel who will handle animals on this protocol in the protocol-specific procedures they will be performing.

- **After approval of the protocol, I certify that:**

I will notify the IACUC regarding any unexpected study results that negatively impact the welfare of the animals, including but not limited to, those that require veterinary care or treatment not described in the approved protocol.

I will obtain approval from the IACUC **before** initiating any change in the protocol by submitting an amendment to the IACUC. I understand that procedures performed on animals without IACUC approval must be reported to Federal oversight agencies.

I understand that this protocol will be approved for no more than **three** years. If animal activities are planned to continue beyond this protocol's expiration date, a Renewal application must be submitted to the IACUC. If approval of the Renewal is not granted before the expiration date of the current protocol, I must stop all research-related animal use activities on this protocol immediately. I also understand that the continuation of activities after IACUC approval has expired is a serious and reportable violation.

I agree with the above statements ☐