FORM C

SHSU Institutional Animal Care and Use Committee (IACUC)

Animal Care and Use Application – Research

Principle Investigator Information:			
Name:	Department:		
Campus Address:			
Campus Phone:	Campus Email:		
◯ Faculty	◯ Staff	◯ Grad Student	◯ Undergrad Student
Supervisor Information:			
Name of Supervisor:	Supervisor Phone:		
Address of Supervisor:			

PROJECT TITLE: _____

PROJECT STATUS: ◯ New ◯ Renewal*

**A new complete application must be submitted every three years, or if changes are made to protocols.*

Completion and signing of this form are the responsibility of the principal investigator or faculty member in charge. Completion of the approval process will fulfill Public Health Service and USDA Animal Welfare Act requirements, and will serve to remind users and the public of SHSU's commitment to humane care and use of animals.

In signing this form, I assure that discomfort and injury to animals will be limited to that which is unavoidable in the conduct of valid scientific research. I have consulted with a veterinarian when potentially painful procedures are to be performed. I further assure that all applicable licenses and permits have been obtained and copies are attached to this document. I agree to comply with SHSU's IACUC policies and procedures, and all applicable state and federal laws governing animal welfare.

Ethics Certification:

In order for your application to be reviewed, a copy of your CITI Certification needs to be on file with the Office of Research and Sponsored Programs (ORSP).

☐ *I hereby certify that a copy of my CITI Certification has been sent to the ORSP.

SIGNATURES

Principal Investigator _____ Date _____

Faculty Supervisor _____ Date _____

Department Chair _____ Date _____

IACUC USE ONLY

IACUC Chair/Authorized Signature: _____ Date _____

Attending Veterinarian: _____ Date _____

1) Project Funding (NOTE: if the research is not funded, indicate this by including N/A in each box)

Agency	Grant No.	Start Date	End Date	Funding Status

2) Select the appropriate USDA Pain/Distress Category based on its regulatory definition:

☐ **Column B:** *Breeding or holding Colony protocols for use in research, testing, teaching, experiments or surgery but not used for those purposes.*

☐ **Column C:** *No more than momentary or slight pain or distress and no use of pain-relieving drugs, or no pain or distress (e.g., euthanized for tissues; just observed under normal conditions; routine procedures; injections; blood sampling; positive reward projects).*

☐ **Column D:** *Pain or distress appropriately relieved with anesthetics, analgesics and/or tranquilizer drugs or other methods for relieving pain or distress.*

☐ **Column E:** *Pain or distress or potential pain or distress that is **not** relieved with anesthetics, analgesics and/or tranquilizer drugs or other methods for relieving pain or distress.*

3) **Experience and Training**: Using the table below, list all people working on this AUP starting with the PI (i.e., who all will have direct animal contact). Include each person's experience with the species and the techniques listed in this proposal, or state who will train them in the proper techniques. Specify those persons performing anesthesia and surgery. For each person, briefly state their experience/qualifications to perform the procedures described within this application, or how training will be obtained if needed.

PI Name: Experience:	PI: **XX** Animal training approval dates:
Name: Title: Department: Office Location: Experience:	Check (XX) if: Co-PI ☐ Student Researcher ☐ Office phone: Lab phone: Email: Animal training approval dates:
Name: Title: Department: Office Location: Experience:	Check (XX) if: Co-PI ☐ Student Researcher ☐ Office phone: Lab phone: Email: Animal training approval dates:

(NOTE: If there are additional co-investigators or research personnel please attach a Microsoft Word document with the relevant information for each.)

4) **Purpose of proposed research**: Summarize the proposed research using **non-technical language** that can be readily understood by IACUC members whose primary concerns are **non-scientific.** Briefly describe the experimental methods in narrative form, using lay terminology, understandable by someone with a high school education, no acronyms or scientific jargon should be utilized (**500 word limit**).

5) **Rationale and background**: Briefly describe the experimental methods (**statement in lay terminology; 500 word limit**).

6) Assurance that proposed research does not unnecessarily duplicate previous research.

Has an extensive literature search been done? ☐ Yes ☐ No

Provide two sources consulted. (e.g. Science Direct, Medline, etc.) With each source, provide the dates you performed the search and the keywords used to perform the search (as directed by the USDA Animal Care Policy #12).

Source 1: _____

Source 2: _____

7) Assurance that proposed research does not offer alternatives to the use of animals in research.

Has an extensive literature search been done? ◯ Yes ◯ No

Provide two sources consulted. (e.g. Science Direct, Medline, etc.) With each source, provide the dates you performed the search and the keywords used to perform the search (as directed by the USDA Animal Care Policy #12).

Source 1: _____

Source 2: _____

8) **Animal husbandry and justification of use:**

Species	Total # for Project	Source of Animals	Housing Location	Research Location (Bldg/Room)

(NOTE: If there are additional species please attach a Microsoft Word document with the relevant information for each.)

8a) If wild animals are used, describe how they will be trapped and the types of traps used.

8b) Describe the characteristics of the animals that satisfy their use in this study and how the number of animals needed was determined.

8c) **Justification of the number of animals needed:** include the number of animals to be used, discuss the statistical test to be used, alpha level, power, effect size, and mean differences based on previous research. Failure to do so will result in an immediate request for revision without review.

8d) Are all husbandry and handling practices standard? (Routinely performed in this facility.)

◯ Yes ◯ No

If no, describe all deviations from standard procedures and practices.
For Example, prolonged restraint is not considered a standard practice and must be justified.

8e) Provide a brief description of your quarantine plan and subsequent protocol for monitoring the health status of the animal(s).

8f) Even when euthanasia is not an integral part of the protocol (Form C), please provide an adequate protocol for euthanasia in case there is an unexpected event.

Method:

Agent:

Dose: Route:

Name of the individuals administering euthanasia:

Specify the education, training, and experience which qualifies each person to perform the euthanasia:

Justification of decapitation/cervical dislocation without anesthesia, if employed:

8g) Will animals be kept for longer than 12 hours in any area other than the main housing facility?

◯ Yes ◯ No

If yes, indicate the location (building and room #), number of animals, and explain why animals must be kept outside of main facility.

9) **Collection Permits Requirement:** Please provide photocopies of all current permits that authorize the proposed field activity. If current permits are not available, previously issued permits or a copy of the application for the current permit may be submitted temporarily in order to demonstrate concept. Up to date permits must be filed with the IACUC upon receipt in order to be compliant with regulations on animal use numbers.

◯ I have attached complete/full copies of all current permits

◯ I have attached previously issued permits or a copy of the application for a current permit and will file up to date permits with the IACUC when received

◯ Permits do not apply:

- If permits do not apply to your project, please explain/describe:

- If permits are not required, if possible, please provide documentation to that effect such as a copy of the regulatory statute or a letter from the appropriate law enforcement agency.

Please note additional information may be required for studies that do not require permits.

10) Disposition of animals:

☐ Euthanasia ☐ Return to Colony ☐ Return to Wild

☐ Harvesting for Additional Use ☐ Transfer to a Different Project ☐ Other (i.e., Adoption*)

* ***If adopting animals to private homes, assure appropriate drug withdrawal times if applicable.***

10a) If **transferring**, provide the name of the different project, or if **"Other"**, please provide specific details:

10b) If **Euthanasia**, select the method to be used:

Note: Euthanized animals may not be made available for human consumption.

☐ Lethal Injection using a commercial solution at the recommended dosage. (Succomb, Euthol, Beuthanasia-D)*

☐ Inhalation of Anesthetic gases. (Isoflourane)

☐ Inhalation of carbon dioxide. (rodents, birds, amphibians)

☐ Physical Method (Cervical dislocation, Decapitation).
Describe the scientific justification in the comments section (10d, pg. 7)**

☐ Other.
Explain and describe the scientific justification in the comments section (10d, pg. 7)**

*10c) Give estimate of animal's weight and dosage of the drug used.

10d) **Comments Section
Must be an approved method as described in the AVMA Guidelines on Euthanasia which can be found at www.avma.org/KB/Policies/Pages/Euthanasia-Guidelines.aspx

10e) If harvested, please explain additional use.

10f) If harvested, please list the name, address, and phone number of the rendering company.

Name:		Phone:
Street:		
City:	State:	Zip:
Email:		

11) Experimental Manipulations:

◯ Yes	◯ No	Will surgery be performed? **If yes, complete Section A.**
◯ Yes	◯ No	Will anesthetics be administered? **If yes, complete Section B.**
◯ Yes	◯ No	Will animals have a serious or experimentally-induced disease, perceive pain and discomfort, or be subjected to prolonged restraint or aversive stimuli? **If yes, complete Section C.**
◯ Yes	◯ No	Does this project require the use of radioactive materials or biohazard agents in surviving, live animals? **If yes to either question, complete Section D.**

Section A: Surgery

Surgery is defined as a major operative procedure that exposes a body cavity or produces substantial impairment of physical or physiologic function.

Multiple survival surgeries on a single animal are discouraged unless they can be scientifically justified.

All survival surgery must be performed using aseptic procedures, including surgical gloves, masks, sterile instruments, and aseptic techniques.

Non-rodent mammalian survival surgery must be performed in an operating room used only for surgery.

If working with farm animals, please obtain a copy of "The Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching" published by The Federation of Animal Science Societies. These are available from the chair of the agricultural department.

1) The type of surgery will be:

- ◯ **Survival** *(animal will awaken from anesthesia)*
- ◯ **Non-survival** *(animal will remain anesthetized during entire procedure and will be euthanized without awakening)*

2) Location where surgery will be performed:

3) **Describe Surgical Procedures**
Include aseptic preparation of the operative site, location and size of incisions, size and placement of catheters or devices that will be implanted, and estimated time to complete the procedure. For minor procedures, include operative site preparation, description of procedures to be performed and estimated duration of the procedure.

Major Procedures

3a) Aseptic preparation of the operative site:

3b) Location and size of incisions:

3c) Suture types used:

3d) Estimated time to complete the procedure:

Minor Procedures

3e) Preparation of the operative site:

3f) Description of procedures to be performed:

3g) Estimated duration of the procedure:

4) Will multiple survival surgeries be performed on any one animal?

◯ Yes ◯ No

4a) If yes, provide scientific justification for performing these procedures:

5) Describe post-operative care including how often animals will be observed and all drugs (except analgesics) to be administered:

5a) Frequency of observations:

5b) Drugs to be administered:

5c) Provide plans for addressing any adverse events during the post-operative care:

Section B: Anesthesia/ Analgesia

1) Pre-operative regimen: Include length of withholding food and/or water and drugs administered.

1a) Length of withholding food: _____

1b) Length of withholding water: _____

1c) Drugs administered: _____

2) Anesthetic regimen: List all pre-anesthetic, induction, maintenance and muscle relaxant drugs that will be used. Include dosages and routes of administration:

3) Analgesic drugs: Provide drug names, dosages, route and frequency. If analgesic drugs cannot be administered, provide scientific justification for withholding them.

1: _____

2: _____

3: _____

(3a) Justification for withholding analgesics: (if applicable)

4) Describe the procedures and methods that will be used to indicate that adequate depth of anesthesia is being maintained:

Section C

Animals will have a serious natural or experimentally induced condition, will perceive discomfort, or be subjected to periods of restraint or aversive stimuli.

Procedures that would be expected to cause pain or distress in humans should also be considered painful for animals. Prolonged restraint means the animal is kept confined or immobilized for time periods in excess of those required for administration of treatments or routine handling procedures.

1) **Consideration of Alternatives**
What consideration have you given to refining procedures to be less painful; to using other non-vertebrate species; to using fewer numbers of animals; or to non-animal alternatives?

2) Will the animal's death be used as an experimental endpoint?

◯ Yes ◯ No

2a) If not, list the specific criteria for euthanasia of sick animals:

2b) If the animals cannot be euthanized, please provide a justification:

3) If the animal will have a serious natural or experimentally induced condition, answer the following:

3a) What condition(s) will the animal(s) have?

3b) How will progression of the condition be monitored?

3c) What measures will be taken to alleviate or minimize pain/distress?

3d) Check appropriate spaces below and provide details under comments:

- ☐ Injection of hazardous/toxic substance into a living animal
- ☐ Immunization protocols
- ☐ Prolonged restraint
- ☐ Food/water deprivation
- ☐ Abnormal environment (temperature, humidity, light/dark)
- ☐ Hybridoma protocols
- ☐ Aversive stimuli

3e) Comments:

Section D: Hazardous Materials

1) If Animals will be exposed to a hazardous material or substance, check the applicable boxes below:

- ☐ Infectious agent
- ☐ Toxic Chemical
- ☐ Radioisotope
- ☐ Carcinogen
- ☐ Recombinant DNA
- ☐ Transplantable Cell line

Other (list) _____

(1a) Describe agent, amount and route of administration

1: _____

2: _____

3: _____

2) List specific safety precautions and procedures for handling animals, including disposal:

3) Have the necessary approvals been obtained from:

Radiation Officer	◯ Yes	◯ No	◯ N/A
Biosafety Officer	◯ Yes	◯ No	◯ N/A

4) Does any material or drug used in the exercise require a license? If yes, include a copy of the license.

◯ Yes ◯ No

5) Expiration date of your license: _____