



Institutional Animal Care and Use Committee
Troy, NY

IACUC Protocol Number: _____
Animal Biosafety Level (ABSL): _____

Species: _____

____ new protocol submission _____ 3-year resubmission

Principal Investigator (PI): _____ Department: _____

Office phone: _____ e-mail: _____ office bldg/room: _____

Cell tel: _____ Home tel: _____

Alternate Contact Person: _____ Department: _____

Office phone: _____ e-mail: _____ office bldg/room: _____

Cell tel: _____ Home tel: _____

Project Title: _____

Date of application: _____ Date of IACUC approval: _____

Annual renewal date year 1: _____ 3-year renewal date: _____

Purpose of animal use: _____ Research _____ Teaching
_____ other - describe: _____

If this is a resubmission:

Previous protocol IACUC number: _____ Previous protocol end date: _____

Previous protocol title: _____

Previous protocol PI: _____

Previous protocol amendments

Title: _____

Date of approval: _____

Title: _____

Date of approval: _____

Title: _____

Date of approval: _____

SUBMISSION of this form to the IACUC for review: Submit the completed form to the IACUC (hard copy and electronic file) at least six weeks prior to the next scheduled IACUC meeting. The IACUC will confirm receipt and reply with questions and comments within two weeks of receipt. The project PI will respond at least two weeks prior to the scheduled meeting. The committee's decisions and actions will be communicated to the PI, by e-mail, within one week after the meeting.

After the protocol has been approved by the IACUC, the PI must deliver a signed hard copy of the entire protocol to the IACUC, which then will provide a formal approval letter. The 3-year protocol period will begin coincident with the date of this formal approval letter.

An expedited approval process may be requested, in writing, and will be granted if feasible and in the best interests of the investigator.

Protocols that require approval of the Institutional Biosafety Committee (IBC): It is recommended that the PI simultaneously submit applications to the IBC and to the IACUC. IBC approval must be secured prior to the acquisition of formal IACUC approval.

Funding Source for this research:

___ NIH ___ NSF ___ other: _____

Grant title: _____

PI: _____

Grant status: ___ planned ___ pending ___ current

If relevant: grant start date _____ grant end date _____

(Please submit a copy of the grant, minus appendices with this protocol)

Preview: specific procedures to be performed during this project

- Tissue harvest (from dead animals)
- Imaging studies
- Production of transgenic animals
- Rederivation of transgenic Animals
- Production of monoclonal or polyclonal antibodies
- Blood collection
- Survival surgical procedures
- Terminal non-survival surgical procedures
- Use of neuromuscular blocking agents
- Prolonged physical restraint and restriction of movement
- Use of feral (wild-caught) animals
- Tumor production
- Food and/or water restriction
- Catheterization or instrumentation in animals
- Special housing and husbandry procedures
- Special diets
- Footpad injection
- Animal identification manipulations
- Use of anesthetics, analgesics or tranquilizers
- Use of controlled substances

Section I: General project information

Please complete this section with clear, concise responses in terminology that will be understood by non-expert reviewers.

a) Hypothesis for the proposed research.

b) Concise description of the proposed research. Please describe the basic experimental design in general terms, including a description of treatment and control groups and experimental endpoints.

c) Goals and specific aims of the proposed research.

d) Scientific background and rationale for the proposed work.

e) Description of the anticipated benefits of this research to science and society.

Section II: Animal pain and distress classification of the proposed research

(check one)

No pain or distress beyond that involved in restraint, injections, survival blood collection or tissue collection under anesthesia.

Potential for pain and distress but relief is provided by appropriate means including anesthesia, analgesia or tranquilizing drugs. Please note that the USDA has defined any surgery as potentially painful (this includes both survival and non-survival surgery). Procedures in this category would include antibody production, tumor production, perfusion and the use of neuromuscular blocking agents.

Pain or distress that will not be relieved by sedatives or analgesics.

If relief will not be administered, provide the scientific justification:

Section III: Justification for the proposed research

a) Duplication of previous research.

Does this research duplicate previous work? (yes or no) _____

If yes, why is this duplication necessary?

b) Literature search.

Indicate which of the following databases and other sources have been searched to assure that the proposed experiments a) do not unnecessarily duplicate previous experiments, b) do not cause undue distress or pain and c) cannot be performed with alternative species or alternative methods.

The purpose of this search should be to strive to design experiments that "refine" (e.g., by using less stressful procedures, "replace" (e.g., substitute research organisms that are lower on the phylogenetic scale and "reduce" (i.e., the number of proposed research animals).

The search must be conducted within 3 months prior to submission of this protocol.

Search terms: _____

database

date search performed

years covered

Medline

Agricola

Biosis / Life Science

CAB Abstracts

Embase

Association of
Veterinarians for Animal
Rights <http://www.avar.org>
(for teaching protocols)

other:

other:

c) Citations.

Please list the citations for at least two peer-reviewed publications, especially including papers published by the PI or co-investigators, that support the justification for this proposal.

d) Conclusion: alternatives to using animals in this research.

_____ There are no feasible alternative methods (e.g., tissue culture, computer models, bacterial Cultures, etc.) that are available for this proposed work. This research requires the use of living animals.

_____ There are alternative methods that are available for this proposed work, but these methods will not be used.

Explanation:

Section IV. Animal species and numbers

The PI must provide justification for the choice of research animal species and for the proposed number of animals to be used in this research. *It is expected that the proposal will utilize the minimum number of animals required to achieve the research goals.*

a) Number and species of animals to be used in this research.

FOR EACH INDEPENDENT EXPERIMENT, estimate the total number of animals anticipated to be used during the approved term of this protocol (not to exceed 3 years). *Animals shall include both live-born and neonatal pups.* Include all animals that will be:

- purchased
- imported from external research sites
- transferred from other protocols (*if so, list protocol numbers*)
- produced by breeding within this protocol (breeding)

Experiment 1: _____

<u>species, strain</u> <u>genetic alteration</u>	<u>number</u> <u>purchased</u>	<u>number</u> <u>produced</u>	<u>number from</u> <u>other protocols</u>	<u>total for</u> <u>species/strain</u>
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Total animals Experiment 1 = _____

Experiment 2: _____

<u>species, strain</u> <u>genetic alteration</u>	<u>number purchased</u> <u>(M / F; age or wt)</u>	<u>number</u> <u>produced</u>	<u>number from</u> <u>other protocols</u>	<u>total for</u> <u>species/strain</u>
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Total animals Experiment 2 = _____

Experiment 3: _____

<u>species, strain genetic alteration</u>	<u>number purchased (M / F; age or wt)</u>	<u>number produced</u>	<u>number from other protocols</u>	<u>total for species/strain</u>
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Total animals Experiment 3 = _____

b) Species justification.

Provide a brief separate justification for each species listed on the protocol, possibly including statistical validity, previous data or investigator experience, genetic rationale or physiological rationale.

c) Experimental endpoints.

For each experiment, estimate the planned duration of survival after the experimental protocol has been started. Times may be in hours, days, weeks or months.

Experiment 1:

Experiment 2:

Experiment 3:

For each experiment, briefly describe the specific experimental endpoint. Examples may include gene or protein expression, a physiological or biochemical result or a behavioral observation.

Experiment 1:

Experiment 2:

Experiment 3:

Sources of purchased animals:

d) Summary: Justification for the use of animals.

Check all of the considerations that apply.	
<input type="checkbox"/>	This research must be done in a live animal model, since it is necessary to evaluate the interaction between complex organ systems, which cannot be done <i>in vitro</i> .
<input type="checkbox"/>	This research is a direct extension of previous work on this species.
<input type="checkbox"/>	This research seeks to extend previous findings from other species specifically to this species.
<input type="checkbox"/>	Nothing is known about the physiological/behavioral phenomena of interest in this species.
<input type="checkbox"/>	More is known about related aspects of the physiological/behavioral phenomena of interest in this species than in any other.
<input type="checkbox"/>	This species represents the best compromise between the least sentient (simplest) organism that can be used and the most relevant model system for human physiology/behavior.
<input type="checkbox"/>	Tissues are needed for analysis from an animal who has had the experimental modifications under study
<input type="checkbox"/>	This research will not use live animals for experiments; however, it is necessary to use live animals to obtain tissues for experiments.

V. Procedures

a) Husbandry considerations.

1. Estimate how many animals (including rodent pups) will be housed in the BRC at any one time:

number of animals: _____ number of cages: _____

2. Describe any special considerations relevant to husbandry or housing (e.g., barrier needs, quarantine expectations, special light cycles, special bedding, cage density issues, delayed weaning, temperature, special feed, protection of immuno-compromised animals, etc.)

3. Diets and nutritional considerations. Describe the composition of any special dietary or nutritional requirements, the preparation of the feed and the frequency of feeding.

What will be the consequences of the proposed diet change?

4. Describe any notable behaviors, phenotypes, health challenges, or nutritional issues that require observation or special care.

For genetically engineered animals, describe:

- visible signs of expression
- behavioral and physiological issues
- increased morbidity & mortality and indications

5. Estimated BioResearch Core (BRC) procedure room use.

Estimate the number of hours per month that research will be performed in:

- General rodent procedure / rodent surgery rooms: _____

- Behavioral / neuroscience rooms: _____

- Histology / necropsy room: _____

6. Off-site (remote) procedures and housing

a) Will animals from the BioResearch Core (BRC) ever be removed temporarily from the BRC?
(yes or no) _____

If yes:

b) Provide justification *and* describe the location and husbandry procedures at the remote site. Include the names of the responsible remote animal care personnel, the barrier status of the remote site and transportation methods.

c) Will the animals remain outside the BRC for less than 12 hours? _____ More than 12 hours? _____

Please note that remote housing for more than 12 hours requires IACUC approval and subsequent quarantine housing upon return to the facility.

Remote locations where animals will be housed outside of the BRC animal facility for more than 12 hours must be inspected and approved by the IACUC prior to relocation of the animals.

note: Animal Emergencies: In the event that the animal care staff or the veterinarian cannot reach the PI or the PI's group members during an acute animal health problem, therapy may need to be given. Drugs (e.g. steroids, antibiotics or fluids) may be administered. Are there any drugs that cannot or should not be used to treat your experimental animals?

VI. Surgical procedures

Please describe all surgical procedures that will be performed. Survival surgeries will be limited to one procedure per animal, unless otherwise authorized by the IACUC.

a) Survival surgical procedures.

For each independent surgical procedure, complete the two-page form, “**Animal Procedure Description**”, which follows on the next page of this document. Complete as many forms as necessary.

Procedure: _____

Describe the procedure, including:

- basic details of anesthesia procedures
- estimated duration of surgery and closure procedures
- estimated mortality rate
- the clinical signs of pain/distress associated with the procedures
- the frequency of post-operative observation
- the endpoint of the experiment and the person(s) who will document these observations
- treatment(s) that will be performed to provide relief of pain, distress and infection.

The use of diagrams is encouraged.

PHYSICAL DISCOMFORT: Select one of the following statements.

___ No discomfort or post-procedural complications are anticipated since the animals will only be used as a tissue source and will be humanely euthanized.

___ No discomfort will be expected as the animal will be under a plane of anesthesia for the entire procedure and will be euthanized at the completion of the procedure.

___ Discomfort or disability related to genotype or genetic manipulation is expected. *Please explain:*

Expected physical discomfort related to this procedure.

	Time of Possible Discomfort	Frequency of Observation by Lab Staff	List Possible Observable Signs of Pain	Response to Clinical Signs of Pain		
				Analgesia	Euthanasia	None (Death is endpoint)
<input type="checkbox"/>	During procedure only			<input type="checkbox"/> yes	<input type="checkbox"/> yes*	<input type="checkbox"/>
<input type="checkbox"/>	Immediately following procedure			<input type="checkbox"/> yes	<input type="checkbox"/> yes*	<input type="checkbox"/>
<input type="checkbox"/>	Ten days or longer following the procedure			<input type="checkbox"/> yes	<input type="checkbox"/> yes*	<input type="checkbox"/>
<input type="checkbox"/>	Discomfort or disability is related exclusively to genotype.			<input type="checkbox"/> yes	<input type="checkbox"/> yes*	<input type="checkbox"/>

*** Specify the clinical criteria that will determine the decision to perform euthanasia.**

Describe special care that will be provided, including analgesia, increased frequency of observation, nursing care or other treatments.

If euthanasia ever will be delayed or withheld intentionally in ill or distressed animals, please provide the scientific justification for this decision.

- end of form –

b) Terminal (non-survival) surgical procedures (including procedures for euthanasia and disposal of corpses).

Describe all non-survival procedures included in this protocol.

c) Anesthesia, analgesia and tranquilizer usage

Please describe all anesthetic, analgesic and tranquilizer agents that will be administered for all procedures listed in the protocol.

___ n/a

Agent	Dose (mg/kg)	Route	Volume	Frequency

d) Depth of anesthesia.

Describe procedures that will be used for determination of the depth of anesthesia and how anesthesia will be increased, when necessary.

e) Use of Neuromuscular Blocking Agents and paralytic agents.

The use of these agents must be supported by appropriate anesthetic procedures.

Describe the justification for use, and the dosage and administration of the agents and the anesthetics.

Describe how the animals will be monitored and the precautions that will be taken to insure that the animals are properly anesthetized and will not suffer preventable pain or distress.

f) Catheterization and/or instrumentation in animals.

Describe catheterization or instrumentation procedures including site preparation, placement and local anesthesia, if required.

g) Final disposition of animals and euthanasia

At the end of the experiment the animal(s) will be (check all that apply):

transferred live over to BRC staff for disposal

transferred live to another protocol; protocol number _____

euthanized by the researcher(s)

VII. Non-surgical survival procedures and manipulations

Complete the table for each procedure which will be performed.

Type of procedure	Anesthetic	Analgesia	Procedure Location		
			Animal housing room	Procedure room	PI laboratory
<input type="checkbox"/> Survival blood collection			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Identification (ear tag, punch, notch or tattoo)	Restraint only required	None required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Identification (toe amputation). Allowed only in rodents <7 days old Must be approved in protocol by IACUC	Restraint only required	None required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Distal tail amputation in mice less than 28 days old. Total removed must be <10mm; hemostasis required as needed	None required	None required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Distal tail amputation in mice greater than 28 days. Total removed must be <10mm, hemostasis required	Anesthesia required	Required 15 min. before procedure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Radiography (X-ray)	Anesthesia required	None required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Ultrasound			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Imaging procedures			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Fluoroscopy			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Food restriction longer than 16 hrs.		N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Water deprivation longer than 1 hr. Note: water deprivation is not indicated prior to surgery.		N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Behavioral testing or manipulation. <i>See below.</i>		N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Forced exercise. <i>Please describe below.</i>		N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Footpad injection – <i>see below</i>		N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> other					

a) Special procedures.

If behavioral testing, forced exercise procedures or footpad injections were checked in the preceding table, describe and justify these procedures, including all steps taken to reduce pain and distress.

b) Physical restraint.

Will non-anesthetized animals ever be restrained for more than ten minutes? (yes or no) _____

If yes, please describe restraint method in detail, including:

- types of restraint devices
- duration and frequency of restraint for individual animals
- acclimation procedure for any restraint devices

Provide a justification for all planned restraint procedures.

c) Food or water restriction.

Will food or water restriction ever be used in this protocol? (yes or no) _____

If yes, estimate the duration and frequency of restriction.

Describe the strategy for monitoring the animal during food or water restriction, including the frequency of body weight evaluation.

Provide justification for the food and/or water restriction procedures.

d) Survival blood sample collection.

Will blood samples be collected in this research? (yes or no): _____

If yes, please acknowledge the following guidelines by checking the boxes below:

Blood collection guidelines

- No more than 1% of blood per body weight (i.e., 10 ml/kg or less) may be collected every 2 weeks.** *For example, 0.2ml of blood in a 20-gram rodent is acceptable.*
- No more than 2% of blood per body weight (i.e., 20 ml/kg or less) may be collected with fluid replacement every 2 weeks.** *Hematocrit must be monitored biweekly and a decrease in hematocrit of 5 units is an indication to delay or minimize blood collection.*

Blood collection sites

Check all that may be applicable during the duration of the protocol.

Site of venipuncture	Volume	Frequency	Reason for site selection
<input type="checkbox"/> Retro-orbital sinus			
<input type="checkbox"/> Proximal tail vein			
<input type="checkbox"/> Tail artery Complete 12c			
<input type="checkbox"/> Distal tail laceration			
<input type="checkbox"/> Cephalic vein			
<input type="checkbox"/> Jugular vein			
<input type="checkbox"/> Tarsal vein			
<input type="checkbox"/> Other:			
<input type="checkbox"/> Indwelling catheter. <i>Surgical procedure must be described in the protocol</i>			

Anesthesia, analgesia and/or tranquilizers used for blood collection

If none of these agents are required, please note below.

None required

Agent	Dose (mg/kg)	Route	Volume	Frequency

e) Imaging procedures

___ Pharmascan MRI

___ 600 MHZ NMR

___ other: _____

Room locations of animal preparation and anesthesia induction: _____

Species: _____

Estimated duration of imaging procedures: _____

Description of imaging procedures.

1. Animal preparation.

2. Anesthesia (agents, dose, route of administration)

3. Transportation strategies for animals before and after imaging procedures.

Will individual animals undergo multiple imaging procedures? (yes or no) _____

Will animals be euthanized at the conclusion of each procedure? (yes or no) _____

f) Animal identification methods.

Check all that apply:

cage cards

micro-tattooing

micro-chip transponder

ear-tagging

ear-punching (newly weaned rodents only)

toe clipping (only approved for small rodents when no other individual identification methods are feasible; restricted to altricial neonates (i.e., animals considered helpless and whose eyes have not yet opened; mice < 12 days old and rats < 7 days old)

Justification for use of toe clipping:

VIII. Euthanasia procedures and humane endpoints for this research

note: The PI acknowledges that he/she is the responsible individual for this protocol, and all workers with animals in his/her laboratory will be trained in examining animals to recognize the loss of vital signs (i.e., heart beat and respiration) to ensure that the animals are dead.

_____ PI must acknowledge here.
PI initials

IACUC Policy: *Humane Endpoints in Rodents* must be observed unless exceptionally strong scientific justification is presented to allow the animal to live longer. Please note that death as an endpoint is only permissible in rodents and that all scientific justifications must be approved by the IACUC.

Please acknowledge agreement with the following statement by checking the box.

- The guidelines for euthanasia, reduction of pain and suffering and discomfort and humane endpoints will be observed during the entirety of this research program.*

note: Methods of euthanasia must follow the current guidelines established by the American Veterinary Medical Association Report of the AVMA Panel on Euthanasia. (JAVMA, Vol. 218, No.5, March 1, 2001, <http://www.avma.org/resources/euthanasia.pdf>)

Humane Endpoints.

Please describe the criteria that will be used in this study to determine if and when animals will be humanely euthanized prior to the planned termination of the experiment.

Terminal (non-survival) blood collection.

Will terminal blood collection be performed during this research? (yes or no) _____

If yes, please complete the following section.

Note: Animals must be exsanguinated, via cardiac puncture, under a surgical level of anesthesia, unless an alternative procedure is approved by the IACUC.

Location(s) of terminal blood collection: ____ BRC procedure room ____ PI laboratory

Euthanasia procedures that may be used in this research. Please complete the following table.

Procedure to be used <i>Check one or more as needed</i>	Agent	Dose (mg/kg)	Route of administration
<input type="checkbox"/>	CO ₂ <i>Allowed in rodents only</i>	To effect	Inhalation
<input type="checkbox"/>	CO ₂ followed by <i>decapitation. Allowed in rodents only</i>	Until anesthetized	Inhalation
<input type="checkbox"/>	Isoflurane followed by <i>decapitation. Allowed in rodents only</i>	Until anesthetized	Inhalation
<input type="checkbox"/>	Isoflurane followed by incision of the thorax. <i>Allowed in rodents only</i>	Until anesthetized	Inhalation
<input type="checkbox"/>	Sodium Pentobarbital	100 –150 mg/kg	IP <i>Allowed in rodents only</i>
<input type="checkbox"/>	Sodium Pentobarbital	120 mg/kg	IV In non-rodent species**
<input type="checkbox"/>	Euthasol (Pentobarbital 390 mg/ml + Phenytoin 50 mg/ml)	1 ml/10 lbs or to effect	IP <i>Allowed in rodents only</i>
<input type="checkbox"/>	Euthasol (Pentobarbital 390 mg/ml + Phenytoin 50 mg/ml)	1 ml/10 lbs or to effect	IV In non-rodent, vertebrate species**
<input type="checkbox"/>	Conc. Potassium chloride (KCl) <i>Allowed under full anesthesia only</i>	To effect (cardiac arrest)	IV
<input type="checkbox"/>	Decapitation without anesthesia	Scientific justification must be provided	<i>Allowed in rodents only</i>
<input type="checkbox"/>	Cervical dislocation without anesthesia	Scientific justification must be provided	<i>Allowed in rodents only</i>
<input type="checkbox"/>	Other		

**Selected non-rodent species, such as non-human primates and pigs, require sedation/anesthesia prior to administration of the euthanasia agent.

Confirmation of animal death: Please indicate how animal death will be ascertained in this research. One or more of the following criteria must be checked:

Indication		
All species	<input type="checkbox"/>	A major body organ (liver, kidneys, heart or lungs) will be harvested under surgical level of anesthesia causing interruption of circulation and fatal blood loss.
All species	<input type="checkbox"/>	Cardiac blood collection will be collected as a terminal procedure under surgical level of anesthesia. Following collection of sufficient blood the animal will be euthanized by chest incision sufficient to cause pneumothorax or aorta will be severed.
All species	<input type="checkbox"/>	The absence of heartbeat will be auscultated or determined on a physiograph.
Rodents (any age) < 1kg	<input type="checkbox"/>	Pentobarbital solution (Beuthasol®, Euthasol®) or pentobarbital, IP or IV, will be followed by chest incision sufficient to cause pneumothorax.
Rodents (any age) < 1kg	<input type="checkbox"/>	Cervical dislocation will be followed by chest incision sufficient to cause pneumothorax or aorta will be severed.
Rodents (>3 weeks) < 1kg	<input type="checkbox"/>	Rats and mice will be kept in 100% carbon dioxide for 5 minutes by the clock AFTER they stop breathing by visual inspection.
<input type="checkbox"/> Other. Please describe:		

Emergency euthanasia and tissue preservation

In the event that the BRC staff discovers a dead animal or needs to euthanize a distressed animal in your absence, indicate how your laboratory would like the tissue preserved.	
<input type="checkbox"/>	No special requirements
<input type="checkbox"/>	Refrigerate entire animal
<input type="checkbox"/>	Freeze entire animal
<input type="checkbox"/>	Dissect and preserve the following tissues as follows:
<input type="checkbox"/>	Other. Please describe

Notification of carcass discovery

Indicate whether the PI or other designated research staff requests to be notified immediately regarding research animal morbidity and/or mortality.	
<input type="checkbox"/>	No
<input type="checkbox"/>	Yes, always
<input type="checkbox"/>	Yes, conditionally, under the following circumstances:

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IX. Protection of Humans

Will this research use substances that are potentially hazardous to humans? (yes or no) _____

If yes, please attach the MSDS sheets for each agent to this protocol.

Reminder: all protocols using any of the materials below must be reviewed and approved by the RPI Institutional Biosafety Committee (IBC) prior to final approval by the IACUC.

Does this protocol involve the administration to animals of:

- bacteria
- viruses
- parasites
- recombinant DNA or RNA
- human blood or blood-derived products
- human cells
- human body fluids
- human tumor cells (primary or cell line)
- animal tumor cells (primary or cell line)
- other potentially infectious material: _____

Does the protocol involve the administration to live animals of a hazardous chemical, toxin or anesthetic drug? (yes or no)

If yes, please list these agents.

If there is a possible health risk posed to researchers and animal care staff through contact with the animals or their bedding, please describe the risk and explain how the risk will be controlled.

____ n/a

If materials of human origin will be used in this research, please complete the following section.

Type of human-derived material: _____

Laboratory or hospital of origin: _____

Tests performed: _____

Testing laboratory: _____

Please attach test results for each material.

Type of human-derived material: _____

Laboratory or hospital of origin: _____

Tests performed: _____

Testing laboratory: _____

Please attach test results for each material.

Animal health concerns

Will this research involve the use of agents (or imported animals that harbor these agents) that are potentially infectious to other animals within the BRC? (yes or no)

If yes, please list the agents.

Please list all personnel who possess a DEA drug license (include DEA number)

Where (location) will drugs and controlled substances be stored? _____

Inhalation anesthetics

If this protocol involves the use of inhalation anesthetics, these agents must be listed in the appropriate section of the protocol. One of the following waste anesthetic gas scavenging systems must be used. Please indicate which method(s) will be utilized.

- active scavenging with a vacuum system
- filtering with charcoal canisters
- fume hood or a Class II type B biosafety cabinet
- other: _____

X. Assurances

I, as Principal Investigator, certify that	
<input type="checkbox"/>	The information in this protocol and attached appendices is true, accurate and, to the best of my knowledge, conforms with all policies of the RPI IACUC, the NIH and the USDA related to the care and use of animals in research and teaching. The procedures described in this protocol also follow the guidelines in the Guide for the Care and the Use of Laboratory Animals.
<input type="checkbox"/>	I have considered alternatives to the use of live animals used in this project, and I have found these alternative methods unacceptable on scientific or educational grounds.
<input type="checkbox"/>	This project does not unnecessarily duplicate previous experiments.
<input type="checkbox"/>	All personnel who will be performing animal procedures under this protocol have the appropriate knowledge, skills and qualifications, as well as sufficient training and experience. I will ensure that all new and existing personnel undergo appropriate training. All personnel who will be working on this project will read and be familiar with the most recent final version of this IACUC protocol application <u>BEFORE</u> starting work on the project.
<input type="checkbox"/>	Only the individuals named in the protocol will be involved with the animals used in this protocol. When new or additional personnel become involved in these studies, I will submit their qualifications, training, and experience to the IACUC by using a <i>Personnel Change form</i> and seek IACUC approval before they are involved in animal studies.
<input type="checkbox"/>	The animals approved for this protocol will not be used by any persons for work on another project without the written approval of the IACUC.
<input type="checkbox"/>	I will ensure that all personnel, including animal care staff, that may be exposed to potentially hazardous agents or substances fully understand the hazards involved and I will provide all project personnel with contact information for IACUC, Environmental Health & Safety, and veterinary and medical professionals.
<input type="checkbox"/>	No new procedures or significant modifications of approved procedures will be done without written approval by the IACUC.
<input type="checkbox"/>	Every effort to eliminate animal pain and distress through the use of anesthesia, analgesics or tranquilizers has been made. Careful monitoring of the condition of the animals which might indicate pain, stress or illness will be performed.
<input type="checkbox"/>	I understand that my failure to comply with IACUC policies and procedures could jeopardize RPI's standing with the NIH, USDA or AAALAC and may lead to revocation of my privileges to conduct animal research at RPI and subsequent notification to funding agencies, the PHS and /or the USDA as mandated by law. Disciplinary action will be determined by the IACUC and the VP for Research.
<input type="checkbox"/>	I am aware that the IACUC reserves the right to enter any animal room, procedure room or laboratory, at all times, to verify that procedures are being performed according to the approved IACUC application.
<input type="checkbox"/>	I certify that all work described in grant applications or awards listed in this protocol is described fully and accurately.

I understand and agree with all of these assurances and regulations.

PI signature

XI. Research personnel working on this protocol.

Principal Investigator – please complete

Principal Investigator: _____ Degree(s): _____

RPI position: _____ RPI RIN number: _____

Project roles: PI surgeon husbandry and care general non-surgical manipulation
 injection euthanasia tissue collection

Brief summary of experience relevant to the procedures and species in this protocol:

RPI Training dates: animal care and use _____ BBP _____ Biosafety _____

PI signature*

*indicates that the PI is properly trained, as required, and has been informed of potential hazards and safe work practices

Project Personnel Summary

Name	degree	project role	office tel	e-mail
		PI		

For each person working on this project, complete one “Protocol Personnel Information Form” found on the next page.

Forms are 1 page each and must be signed by the researcher and the PI.

Protocol Personnel Information

Researcher: _____ Degree(s): _____

RPI position: _____ RPI RIN number: _____

Project roles: PI surgeon husbandry and care general non-surgical manipulation
 injection euthanasia tissue collection

Brief summary of experience relevant to the procedures and species in this protocol:

RPI Training dates: animal care and use _____ BBP _____ Biosafety _____

Researcher signature*

*indicates that the researcher is properly trained, as required, and has been informed of potential hazards and safe work practices

PI signature*

*indicates that the researcher is properly trained, as required, and has been informed of potential hazards and safe work practices

APPROVAL PAGE

I accept full responsibility for the safe and humane conduct of this work. I accept responsibility for ensuring that all personnel associated with this work have received the appropriate training.

Principal/Responsible Investigator: _____
typed name

Signature: _____

Date: _____

COMMITTEE USE

Approval: Yes Yes, approved with modifications *(see notes below) No

Signatures

IACUC Chairman / Representative: _____

Date: _____

Department Chairperson: _____

Date: _____

Dean (if PI is a Department Chair): _____

Date: _____

Veterinarian: _____

Date: _____

Notes:

IBC Approval (approved IBC registration form attached)

___ not applicable

IBC approval date: _____

Title: _____

Project number: _____