INSTRUCTIONS FOR SUBMITTING THE ANIMAL USE PROPOSAL FORM
REVISED August 2008

All research, teaching, and training activities at the University of South Carolina that use vertebrate animals must receive approval from the Institutional Animal Care and Use Committee (IACUC). To fulfill this requirement, the principal investigator must submit a completed Animal Use Proposal (AUP) Form for IACUC review and approval. The AUP, once approved, should be regarded as the investigator’s contract with the University and the public to conduct animal activities in conformance with applicable laws, regulations, and sound scientific practices.

In preparing your AUP, a consultation with the Attending Veterinarian (AV) is highly recommended, especially if there is surgery involved. The AV will be able to assist with the appropriate medications (analgesics and anesthetics); intra- and post-operative care; and methods of euthanasia. Oftentimes, a pre-review of the animal proposal will help speed up the review process. Though not a complete guarantee of approval, a pre-review helps to identify and clarify areas in the written proposal that need to be changed or revised prior to formal review by the committee.

Read all the instructions before completing the form. There are specific instructions, suggestions and other important information that appear in red type that are intended to assist the user in filling out the AUP. If you have questions, comments, or suggestions about the preparation and submission of the animal proposal, or if you need assistance prior to submission, please call the IACUC at 777-8106 or send an email to iacuc@gwm.sc.edu.

To begin, download the form to your computer and save it as a new document. The form is protected against editing; the user can only type in responses in the form fields that are provided. No change in the form’s standard elements or layout can be made. Each required Appendix should be downloaded separately. Please download the form and necessary appendices each time you need it – corrections or changes may have been made since the last time you used it.

IMPORTANT:
1. NIH FUNDING: If the funding agency is the National Institutes of Health, a complete copy of the approved grant application must accompany the AUP.
2. MEETING SCHEDULE: Proposals are reviewed in the regular IACUC monthly meeting. These meetings are scheduled for the first Thursday of each month. All proposals must be received at least ten (10) days before the next scheduled meeting. Proposals submitted after the deadline will be held for the next meeting. The meeting and deadline schedule is available through the Animal Resource Facilities website: http://uscm.med.sc.edu/ARF/schedule.html
3. ALL SECTIONS OF THE APPLICATION MUST BE COMPLETED. Do not leave any field empty. If a specific section does not apply to your project, please indicate that it is not applicable (N/A). Checkboxes should be checked appropriately. DO NOT double space text entries.
4. SIGNATURE OF BOTH THE PRINCIPAL INVESTIGATOR AND THE DEPARTMENT CHAIR IS NOW REQUIRED.
5. BE CONCISE - BE COMPLETE – BE CONSISTENT
6. SUBMIT YOUR PROPOSAL VIA EMAIL TO: iacuc@gwm.sc.edu
Please do not submit applications via campus mail unless absolutely necessary. It is not necessary to send any copies.
7. SEND ONE SIGNED COPY EACH OF 1) THE AUP TITLE AND 2) INVESTIGATOR’S ASSURANCE to the IACUC, c/Animal Resource Facilities (ARF), GSRC 102. ORIGINAL SIGNATURES ARE REQUIRED. FAXED SIGNATURES WILL NOT BE ACCEPTED.
ANIMAL USE PROPOSAL

Important: READ CAREFULLY

All sections of this Animal Use Proposal (AUP) must be completed within the form field provided. If a specific section does not apply to your project, please indicate that it is not applicable (NA). All procedures that involve the use of animals should be described in this proposal. Remember: If a procedure is not described in this proposal, then it is not IACUC-approved.

Before submitting the proposal, check to ensure that you are using the current form and that the required Appendices are completed and attached.

PRINCIPAL INVESTIGATOR (PI) AND DEPARTMENT INFORMATION

Name of PI: The person responsible for the project; MUST be full-time USC faculty

Department: The PI’s primary appointment

PI Signature: PI signature

Dept. Signature: Dept. Chair’s signature

PI’s E-mail: PI’s email address

PI Telephone: M-F daytime

Emergency Contact: Must be provided (for weekend emergencies)

Emergency Contact Number: Must be provided

Person submitting AUP: Must be provided (if different from above)

Submitter’s Telephone: Must be provided

E-mail: email for the person submitting AUP

PI Fax Number: Must be provided

PROJECT INFORMATION

Project Title:

Project Type: □ New □ Continuation - Previous AUP Number: □ Teaching

Select the type of project. Continuations - USC AUPs only, not work at another institution

Funding Source\(^a\): If NIH, attach complete copy of the approved grant application.

Grant Number:

Grant Title (if different from Project Title):

\(^a\)If funding source is the National Institutes of Health or other PHS Funding Sources, attach a complete copy of the approved grant application.
INVESTIGATOR’S ASSURANCE

PROJECT TITLE: Type complete project title here. The PI should carefully read and understand the following assurances before checking each box and affixing his/her signature below.

As the principal investigator of this proposed project and by affixing my signature below,

☐ I assure that all the information contained in this Animal Use Proposal is true and all the animal procedures described for this study accurately summarize the nature and extent of the proposed use of animals. If this project is to be funded by extramural source, I further assure that this proposal accurately reflects all procedures involving laboratory animals described in the grant application to the funding agency.

☐ I agree to abide by the provisions of the Guide for the Care and Use of Laboratory Animals (National Research Council, National Academy of Press 1996), the Animal Welfare Act (PL 89-544 and Amendments), and the University of South Carolina policies for the care and use of animals.

☐ I certify that this project does not unnecessarily duplicate previously reported experimental work.

☐ I assure that every effort has been made to minimize the number of animals used.

☐ I assure that every effort has been made to reduce the amount of pain, distress, and/or discomfort these animals must experience. I understand that if I cannot be contacted in the event that animals in this project show evidence of distress, illness, or pain, emergency care, including euthanasia if necessary will be administered at the discretion of the veterinary medical staff.

☐ I will promptly notify the IACUC regarding any unexpected study results that impact the health and well-being of the animals.

☐ I am aware that no significant change(s) to the final approved proposal may be initiated without prior written approval from the IACUC.

☐ I understand that approval of this proposal is for a maximum of three (3) years. If animal work on the project is to continue beyond three years, a new Animal Use Proposal must be submitted. An annual review is required.

1. Principal Investigator Printed Name: Type PI’s full name; sign and date below.

Principal Investigator: __________________________

Date: __________________________
## SECTION I. ANIMAL USE PROCEDURES CHECKLIST

Respond to all items in the table. Every animal procedure involved should be completely described in Section III. Some procedures require the completion of an Appendix or of specific sections (see last column).

<table>
<thead>
<tr>
<th>ANIMAL PROCEDURE</th>
<th>SPECIES (Provide animal species below)</th>
<th>REQUIRED TO COMPLETE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood sampling/collection</td>
<td></td>
<td>Section VI.1</td>
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<tr>
<td>Other bodily fluid and tissue sampling before euthanasia</td>
<td></td>
<td>Section VI.1</td>
</tr>
<tr>
<td>Behavioral studies</td>
<td></td>
<td>Section VI.2</td>
</tr>
<tr>
<td>Monoclonal antibody production using the ascites method</td>
<td></td>
<td>Section VI.2</td>
</tr>
<tr>
<td>Monoclonal antibody production without using the ascites method</td>
<td></td>
<td>Section VI.2</td>
</tr>
<tr>
<td>Polyclonal antibody production</td>
<td></td>
<td>Section VI.2</td>
</tr>
<tr>
<td>Use of anesthetics, analgesics, tranquilizing or other therapeutic drugs (e.g., antibiotic)</td>
<td></td>
<td>Section VII</td>
</tr>
<tr>
<td>Administration of drugs or experimental agents b</td>
<td></td>
<td>Section VIII</td>
</tr>
<tr>
<td>Transplantation of tumors or cells into animals</td>
<td></td>
<td>Section IX</td>
</tr>
<tr>
<td>Use of customized antibody c</td>
<td></td>
<td>Section X</td>
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<tr>
<td>Special diet(s)</td>
<td></td>
<td>Section XI</td>
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<tr>
<td>Field study/Trapping of animals</td>
<td></td>
<td>Appendix E</td>
</tr>
<tr>
<td>Tissue collection after euthanasia</td>
<td></td>
<td>Section XIII</td>
</tr>
<tr>
<td>Non-survival surgery</td>
<td></td>
<td>Appendix A</td>
</tr>
<tr>
<td>Major survival surgery d</td>
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<td>Appendix A</td>
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<tr>
<td>Multiple major survival surgery</td>
<td></td>
<td>Appendices A and B</td>
</tr>
<tr>
<td>Multiple surgeries- major/ minor</td>
<td></td>
<td>Appendix A</td>
</tr>
<tr>
<td>Minor survival surgery</td>
<td></td>
<td>Appendix A</td>
</tr>
<tr>
<td>Surgery performed by Vendor</td>
<td></td>
<td>Appendix A</td>
</tr>
<tr>
<td>USDA Exemption</td>
<td></td>
<td>Appendix B</td>
</tr>
<tr>
<td>Prolonged physical restraint</td>
<td></td>
<td>Appendix B</td>
</tr>
<tr>
<td>Food and/or water restriction or deprivation</td>
<td></td>
<td>Appendix B</td>
</tr>
<tr>
<td>Aversive stimuli (e.g., shock) or other stressful procedures from which the animal cannot escape</td>
<td></td>
<td>Appendix B</td>
</tr>
<tr>
<td>Use of hazardous agents:</td>
<td>infectious organism</td>
<td>Appendix C</td>
</tr>
<tr>
<td></td>
<td>carcinogen</td>
<td></td>
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<td></td>
<td>toxic chemical</td>
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<td></td>
<td>radioisotope</td>
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<td></td>
<td>recombinant DNA</td>
<td></td>
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<td>Development of transgenic/knockout line</td>
<td></td>
<td>Breeding Proposal</td>
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<tr>
<td>Death as an endpoint</td>
<td></td>
<td>Appendix B</td>
</tr>
<tr>
<td>Other procedures not described above</td>
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</tbody>
</table>

bThis excludes anesthetics, analgesics, tranquilizing or other therapeutic drugs (e.g., antibiotic).

cAn antibody is considered customized if a supplier or contractor produces antibody in an animal using antigen provided by or at the request of the PI. The OLAW considers antibody produced by a commercial supplier using its own resources and offered for general sale (e.g., through company catalog) as off-the-shelf reagent.

dA major survival surgery means a surgical intervention that penetrates or exposes a body cavity, or produces permanent impairment.

## SECTION II. LAY SUMMARY ON THE IMPORTANCE OF THE STUDY
Briefly explain in simple, non-technical language the aim of the project and its significance to human or animal health, the advancement of scientific knowledge, or the betterment of society. This section should be readily understandable to the general public. Avoid using highly technical terms.

The lay summary should be brief and easily understood by a non-scientist. If you are studying a human or animal disease or health concern, explain the disease, its cause, treatment and how the proposed study might better the condition. For basic science studies, importance of the animal work can be amplified by linking it to the larger body of scientific work that it supports. If using/developing an animal model you may explain how the model contributes to the hypothesis being tested. Avoid the use of highly technical terms.

SECTION III. DESCRIPTION OF THE ANIMAL PROCEDURES
1. Is this proposal a Continuation of previous work: ☐ No-move to #2 ☐ Yes- if yes complete 1a
If this is a continuation, provide a brief summary or progress report of the previous work and why more animals are being requested to continue/complete the project.

1a. For Continuations: Provide a short description of the previous animal use, the number of animals used and justify the need to request additional animals to continue/complete the project. Provide a description so that the IACUC can fully understand the experimental course of an animal and/or group of animals from entry to endpoint. Flow charts, diagrams and/or tables are greatly encouraged. The description of animal procedures must be able to stand on its own; the committee should NOT have to read an additional document to understand what is being proposed. General types of surgery, endpoints, and final disposition of animals should be described here. Details of surgical procedures should appear in Appendix A.

IF A PROCEDURE IS NOT DESCRIBED IN THIS PROPOSAL, IT IS NOT IACUC-APPROVED. USE OF UNAPPROVED PROCEDURES IS A VIOLATION OF FEDERAL, STATE AND UNIVERSITY REGULATIONS WHICH COULD RESULT IN SUSPENSION OF YOUR PROJECT.

2. Briefly explain the experimental design and provide a complete description of all experimental procedures that will be performed on the animals. This description should allow the IACUC to fully understand the experimental course of an animal or group of animals from its entry into the experiment to the endpoint of the study. Flow charts, diagrams, and/or tables are greatly encouraged. Please list all surgical procedures here and include surgical details in the appropriate appendix. Please list all abbreviations to be used.

3. Where will this research be conducted? (Check all that apply)
☐ School of Medicine-ARF ☐ Graduate Science Research Center
☐ Barnwell ☐ Other:

4. Will the animals be removed from ARF for 12 hours or more? ☐ Yes ☐ No

SECTION IV. ANIMALS REQUESTED AND USDA PAIN CATEGORY
1. Using the table below, list all species of live vertebrate animals to be used in this project. Provide the strain/stock, if applicable, and indicate the number under the appropriate USDA
Category. If an animal or group of animals will undergo more than one procedure, the highest level of potential pain or distress determines its category. The total number of animals requested for the duration of the project should be stated. *Please use vendor nomenclature for each strain/stock*

<table>
<thead>
<tr>
<th>Species</th>
<th>Strain/Stock</th>
<th>Number per USDA Category</th>
<th>Total number requested</th>
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<tr>
<td></td>
<td></td>
<td>C</td>
<td>D</td>
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</table>

Explanation of USDA Categories:
USDA C: Procedure involving no pain or distress to the animal.
USDA D: Procedure involving pain or distress, or potential pain or distress to the animal for which anesthetic, analgesic, or tranquilizer is used.
USDA E: Procedure involving pain or distress, or potential pain or distress to the animal for which no anesthetic, analgesic, or tranquilizer is used because of adverse effects on the experimental results.

2. For each animal species/strain listed above, describe the characteristics that justify its use in the proposed study. If animals are listed under USDA Category E, please include a statement explaining why the animals are in this category.

3. What is the source of the animals?
- Commercial Vendor (give vendor name):
- Captured from wild
- Transferred from another protocol: AUP#
- Breeding protocol: AUP#  
- Other:

SECTION V. RATIONALE FOR ANIMAL NUMBERS
All animals requested for the duration of the project must be included and justified. In your response, address the following:

1. Please include the basis upon which the total number of animals was determined and how the number is appropriate for the goals of the project. A power analysis or other statistical justification should be used when appropriate. If animals are used to create cell cultures, then give the number of animals required to produce one culture, the number of cell cultures to complete one experiment, and the number of experiments planned.

2. List the experimental groups (including controls), the number of animals in each group, and the dependent variable(s) to be measured. Explain how the group sizes were determined. Include details of multiple time points and drug doses where applicable.

SECTION VI. BLOOD WITHDRAWAL AND/OR IMMUNIZATION
1. If the proposal requires bleeding from any animal, provide the following information for each species to be used.
- Not applicable
2. If the proposal involves the use of any adjuvant, provide the following information for each species.

<table>
<thead>
<tr>
<th>Species</th>
<th>Type of adjuvant</th>
<th>Site(s) of injection</th>
<th>Number of sites</th>
<th>Volume per site</th>
<th>Frequency of injections</th>
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</thead>
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</table>

Not applicable

### SECTION VII. THERAPEUTIC DRUGS
If anesthetic, tranquilizing or other therapeutic drugs (e.g., antibiotics) will be used for non-experimental purposes to treat the animals, provide the information requested below.

<table>
<thead>
<tr>
<th>AGENT</th>
<th>PURPOSE</th>
<th>DOSE (mg/kg body weight)</th>
<th>ROUTE</th>
<th>FREQUENCY &amp; DURATION</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Not applicable

<table>
<thead>
<tr>
<th>SOURCE OF AGENT(S)</th>
<th>PHARMACEUTICAL GRADE *</th>
<th>LIST ALL AGENT(S) FROM THIS SOURCE</th>
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</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
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<td>Yes</td>
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</tbody>
</table>

*If any of the above agents are non-pharmaceutical grade, then give a scientific justification for using them.

### SECTION VIII. EXPERIMENTAL DRUGS/AGENTS
If the proposal involves the use of experimental drugs or agents, the following information should be provided.

<table>
<thead>
<tr>
<th>AGENT</th>
<th>HAZARD</th>
<th>DOSE (mg/kg body weight)</th>
<th>ROUTE</th>
<th>FREQUENCY &amp; DURATION</th>
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<tbody>
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</table>
*If any of the above agents are non-pharmaceutical grade, then give a scientific justification for using them.

**SECTION IX. TRANSPLANTATION OF TUMORS OR CELLS INTO ANIMALS**

☐ Not applicable
1. Specify the material.
2. Source of material.
3. Has the material been tested for rodent viruses?
   • ☐ No   ☐ Yes - Please indicate the date of testing:

**SECTION X. CUSTOMIZED ANTIBODY**
If this proposal involves the use of a customized antibody, the following information should be provided.

☐ Not applicable

1. Name of contractor or organization that will produce the antibody:
2. Is the contractor registered by the USDA? ☐ Yes ☐ No
   2a. If yes, give Contractor's USDA Registration Number:
3. Is the contractor accredited by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC)? ☐ Yes ☐ No

**SECTION XI, SPECIAL DIETS**

☐ Not applicable
For all special diets used in this study, list the contractor or person who will produce the diet(s).

**SECTION XII. FIELD STUDIES/TRAPPING OF ANIMALS**

☐ Not applicable
If animals in the wild will be used/trapped, please complete Appendix E.

**SECTION XIII. EUTHANASIA OR FINAL DISPOSITION OF ANIMALS**
For all animals requested, indicate the final disposition of animals. Select all that apply.

☐ Transferred to other project(s) (please include which projects): AUP#(s)
☐ Returned to Animal Resource Facilities
☐ Euthanasia - Indicate the proposed method(s) of euthanasia. If a chemical agent is to be used, specify the dosage and route of administration.

☐ If the method(s) of euthanasia include those not recommended by the American Veterinary Medical Association Panel on Euthanasia (e.g., decapitation or cervical dislocation without anesthesia- http://www.avma.org/issues/animal_welfare/euthanasia.pdf) - provide scientific justification why such methods must be used.

SECTION XIV. DUPLICATION OF STUDIES

1. Does this study represent duplication of previously published studies?  ☐ Yes   ☐ No

1a. If yes, what new information is anticipated in the current study to justify duplication?

1b. If no, provide the method(s) used to determine that this project does not duplicate previously published studies (select all that apply):

☐ Electronic Literature Search
   Name of database(s):
   Date search was completed:
   Years covered by search:
   Key words and Search strategy used:

☐ Consultation with Colleagues and/or Experts in the Field
   Name(s) of those consulted:
   Affiliation:
   Date consulted:

☐ Other methods or sources used. Provide specific information.

SECTION XV. ALTERNATIVES TO POTENTIALLY PAINFUL/STRESSFUL PROCEDURES

Note: Federal regulations require consideration of the use of alternatives to procedures that may cause more than momentary or slight pain or distress to animals. You are not required to submit a copy of the search or citations. However, you should keep a copy on file.

1. Briefly explain how you have considered each of the following alternatives and how these are not applicable:

1a. Replacement of vertebrate animals (e.g., use of in vitro cell/tissue culture, computer simulation, mathematical models, or less sentient species).

1b. Reduction in the number of animals (e.g., limiting group sizes to the minimum needed to obtain statistically valid data; performing multiple experiments simultaneously so that the same control group can be used; sharing tissues with other investigators).

1c. Refinement of experimental procedures to minimize pain or discomfort to the animals (e.g., new bleeding and injection techniques that cause less tissue damage or distress;
early endpoints; use of analgesics that provide extended pain relief; use of anesthetics that allow rapid induction and faster recovery).

2. Method(s) used to search for alternatives (select all that apply):
   - [ ] Electronic Literature Search
     Name of database(s):
     Date search was completed:
     Years covered by search:
     Key words and Search strategy used:

   - [ ] Consultation with Colleagues and/or Experts in the Field
     Name(s) of those consulted:
     Affiliation:
     Date consulted:

   - [ ] Other methods or sources used. Provide specific information.

3. If an alternative is available, explain why it cannot be appropriately used for this project.

SECTION XVI. PERSONNEL INFORMATION
Using the table below, provide a detailed description of the training and experience (include number of years) of all individuals who will handle and conduct procedures on living animals under this project. It is the PI's responsibility to insure that all project personnel have received appropriate training prior to initiation of the project and to immediately notify the IACUC of changes in project personnel. Non-completion of the required on-line ARF training will delay proposal approval. *Training requirements were revised May 2008. See the ARF website.*

<table>
<thead>
<tr>
<th>Name of personnel/ Phone #/ E-mail</th>
<th>Role in project (e.g., PI, co-PI, post-doc, technician, student)</th>
<th>Is s/he in the USC Occupational Health Program †</th>
<th>Has s/he completed USC’s ARF on-line training module</th>
<th>Has s/he completed the species specific on-line training module</th>
<th>List all training and experience relevant to procedure(s) list in this proposal</th>
</tr>
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<tbody>
<tr>
<td>□ Yes □ No</td>
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† An occupational health screening is available through the USC Health and Safety Office for personnel who have significant contact with laboratory animals.