GUIDELINES FOR THE USE OF ANIMALS IN RESEARCH

KECK SCIENCE DEPARTMENT
W.M. KECK SCIENCE CENTER
THE CLAREMONTE COLLEGES

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M. Preest
Chair, IACUC
**Introduction**

The use of animals in research is subject to Federal and State statutory controls and ethical considerations. If you are planning on using any animals in your research (excluding fruit flies), you must complete the appropriate attached forms, submit them to the KS Institutional Animal Care and Use Committee (IACUC) by the date specified, and receive approval from the IACUC before beginning your research. There will be no exceptions to this requirement.

The USDA has established detailed regulations for the care and use of animals in research. These regulations are enforced by regular USDA inspections and by the USDA-mandates KS IACUC.

Proposals to use animals in research must include a clear statement of the purpose of the research and an appropriate experimental design and must demonstrate a familiarity with the relevant scientific literature.

**Painful Procedures**

Special rules apply to painful procedures, which by law means any procedure that would reasonably be expected to produce more than slight or momentary pain or distress in a human being. These include, but are not limited to, terminal surgery, some hypodermic injections, ocular or skin irritancy studies, food and/or water deprivation, electrical shock, paralysis or immobility in a conscious animal, and exhaustion studies.

Any study involving a painful procedure must be accompanied by a written “Narrative for Alternatives to Painful Procedures.” At a minimum, this must include the results of a database search for alternatives, together with a list of databases consulted, the date of the search, the years covered by the search, and the keywords used in the search. The proposal must also address “reduction, replacement, and refinement” of animal use. Reduction is defined as a lower number of animals used to obtain necessary data through sharing or animals, better experimental design, or changed practices. Replacement is defined as an alternative to animal use, e.g. replacing use with some method that does not require whole animals. Refinement is defined as an alternative to earlier examples of animal use by better use and/or modification of existing procedures to minimize pain and distress.

**Surgery**

Multiple surgeries are not permitted in KS Senior Thesis research projects.

**Euthanasia**

Specific details of euthanasia must be given. If lethal drug administration is used, details of dose must be provided, together with the particulars of the person licensed to store and administer the drug (provide drug license number and expiration date).

**Sample Size**

The number of animals proposed to be used must be appropriate. Proposals that involve too few animals to have a reasonable expectation of generating statistically significant results will be rejected. Note that laboratory animals can be expensive. Proposals that involve numbers of animals that are financially impractical will also be rejected.
There are precise legal definitions of what constitutes an animal and of the different categories of animals. Read the following carefully.

**Laboratory Mammals**

In the context of KS Senior Theses, these are rats and mice. Use of other species (e.g. rabbits, guinea pigs, primates, etc.) is not permitted under our federal animal use permit.

**Other Mammals**

Other mammals (not included above) are considered wild species (even if captive bred). Laboratory maintenance of these species requires a California Fish and Game (CFG) Prohibited Species Permit (http://www.dfg.ca.gov). These can be expensive and may require many months to acquire. Senior Theses involving these permits will be considered only under exceptional circumstances and the application must be initiated no later than February of the students’ junior year.

Field studies of mammals in CA, involving anything other than passive observation, require a CFG Scientific Collectors Permit. Applications should be filed at the end of the students’ junior year. Field studies in other states or countries will require comparable permits.

**Birds**

Studies on native species require both Federal and State permits for field and/or laboratory study. Laboratory studies on non-native species acquired from pet stores (e.g. zebra finch) require KS IACUC review and approval.

**Reptiles and Amphibians**

Non-endangered reptiles and amphibians do not require Federal or State permits for maintenance if legally acquired from a dealer (e.g. iguanas purchased in a pet store). Field studies or collection of native species require either a Scientific Collectors Permit or a California Fishing License. Contact the chair of the IACUC for specific details.

**Fish**

Research on native marine or freshwater fish will require a CFG Scientific Collectors permit. Laboratory studies on non-native species acquired from pet stores require KS IACUC review and approval.

**Invertebrates**

The KS IACUC does not concern itself with research proposals involving the use of invertebrates. It is up to the student, working closely with his/her advisor, to ensure that appropriate collecting permits (if necessary) are obtained, the care provided meets basic humane standards, and if the experiments proposed involve painful procedures, that alternatives are considered and steps are taken to reduce or eliminate pain to the organism.
The following forms must be typed and the necessary signatures obtained before this application will be considered by the KS IACUC.
1. Provide a detailed project description. Include a clear statement of the hypothesis to be tested or the research question and of the experimental design. Demonstrate your familiarity with the relevant literature.

2. Identify the species of animal to be used. Provide the common and scientific names. Justify your choice of this species.
3. Unnecessary Duplication of Work: The current Animal Welfare Act (AWA) requires that, investigators “provide written assurance that the proposed activities do not unnecessarily duplicate previous experiments.” Regardless of who performed the experiments, provide written justification for the need to duplicate any previously performed work. Consider how you might REFINE your protocol to avoid unnecessary duplication and how you might REDUCE the total number of animals utilized.

4. How many specimens will be used? Justify this number.

5. How will the specimens be acquired? If from a supplier, provide the name of the supplier.

6. Provide a copy of your collectors permit, license, or CFG application.

7. Will live animals be held in the Keck Science Center? If yes, where? Describe requirements for food, water, housing, etc.

8. Will the proposed research involve “painful procedures” as defined above?

9. The AWA regulations require investigators to consider alternatives to procedures that may cause more than momentary pain or distress to the animals and provide a written narrative of the methods used and sources consulted to determine the availability of alternatives (including refinements, reductions, and replacements). These include methods that use non-animal systems or less sentient animal species to partially or fully replace animals, methods that reduce the number of
animals to the minimum required to obtain scientifically valid data, and methods that refine animal use by lessening or eliminating pain or distress, and thereby, enhancing animal well-being. Generally a search of a database will be the most effective method for demonstrating compliance with the requirement to consider alternatives to painful/stressful procedures. When a database search is used to meet the requirement to consider alternatives, provide the names(s) of the databases searched, the date the search was performed, the period covered by the search, the keywords and/or the search strategy used. If some method other than use of a database is used, this must be described in detail. (USDA Animal Care Resource Guide, Policy #12).

10. If painful procedures are involved, describe the procedures that will be employed to eliminate or limit pain or stress or explain why pain/stress is unavoidable and justified.

11. Explain any human health precautions if applicable.

12. You are responsible for the disposal of animals at the end of the project. Describe either the method of euthanasia or the alternative arrangements for disposal.

13. Provide a budget for your project.

Signature of Student _______________________

Date _____________________

Statement of Responsibility of Supervisor
I hereby certify that I am qualified to supervise the above student in the work proposed. I will ensure that the student has the necessary expertise and knowledge.
Signature of Supervisor ______________________

Date _____________________