1. Complete the Application for AES Research Funds Cover Page. Principal Investigator, Co-Investigator(s) and Department Chair signatures are required on the cover page.

Page guidelines are given in parentheses. The proposal, excluding abstract, budget, institutional units involved, cooperation, CRIS summary, references, current and pending support, productivity summary, vertebrate animal description, biosketch(es), and protocol approvals shall not exceed 10 pages. Font size shall be no smaller than 12 point and 15 characters per inch (Helvetica or Arial 12 pt. recommended). Margin size shall be no smaller than one-half inch.

**ABSTRACT**
Summary/description of the project (1 page).

A. Objectives: maximum of 3200 letters and spaces. A clear, concise statement of the objectives of the research, which should be specific and attainable within the duration of the project using the resources available. A certain degree of broad coverage is appropriate. If your project is one that must respond to new and unknown developments try to include some things you are reasonably sure will be done.

B. Approach: maximum of 3200 letters and spaces. Describe the ways in which the research is to be conducted, with emphasis on the scientific methods and any unique aspects or significant departures from usual approaches.

C. Non-Technical Summary: A short 2-3 sentence non-technical description of this project. Include one sentence for the situation of problem; add another sentence for the purpose of this research. Indicate any other states participating in the project.

D. Keywords: maximum of 29 characters per key word. Generally known words should be limited to one or two word terms. Maximum characters for this field is 345.

**BUDGET** (Itemize by main categories)
A. Personnel: Estimate and justify time commitments. Include appropriate fringe benefits (33.87% FT; 7.65% PT).

B. Equipment: List only equipment items related to this specific project. (University guidelines specify "equipment" as items $5,000 or greater, and estimated useful life greater than one year.) Note: Software is not equipment regardless of the cost but is a "supply" item.

C. Supplies

D. Animals: Estimate number, cost and per diem rate.

E. Miscellaneous Costs: Include services required for project, publishing costs, travel costs, etc.

F. Budget should not exceed $10,000/yr. Proposal is for two (2) years; however, funding for 2nd year will depend on submission and approval of a progress report AND availability of funds.

**RESEARCH PLAN**
A. Justification (1 page maximum)
   1) Importance of the problem to agriculture and rural life of the State or region.
   2) Reasons for doing the work (such as needs the project will fill) and doing it at this time.
   3) Ways in which public welfare or scientific knowledge will be advanced.

B. Previous Work and Present Outlook and Objectives (2 pages maximum)
   a. Brief summary of the previous research (citing important publications)
   b. Status of current research.
   c. Additional knowledge needed that the project is expected to provide.
d. A clear, complete, and logically arranged statement of the specific aims of the project.

C. Preliminary Studies/Data (2 pages maximum)
   Note: Preliminary data is not required, but helpful in reviewing the proposal.

D. Procedure (4 pages maximum)
   Details of your research plan, including
   - Statement of the essential working plans and methods to be used in attaining each of the stated objectives. Procedures should correspond to the objectives and follow the same order;
   - Phases of the work to be undertaken currently should be designated;
   - Location of the work and the facilities and equipment needed and available should be indicated;
   - Anticipated results, potential and pitfalls; and
   - Means by which data will be analyzed or interpreted.

E. Extramural Future Funding Potential (1 page maximum)
   State the potential for future funding, likelihood of attracting outside funding, and probable sponsorship. Detail previous and ongoing extramural submissions directly related to the described research.

INSTITUTIONAL UNITS INVOLVED
   Each subject-matter unit in the agricultural experiment station and any other units of the institution contributing essential services or facilities. The responsibilities of each should be indicated. If there is an advisory, coordinating, or directing committee for the project, the official title of the committee should be listed.

COOPERATION
   A statement listing the U.S. Department of Agriculture or other station, institutions, or agencies expected to cooperate formally or informally on the project. If the project is part of a Regional Project, list Regional Research Project Number. Include letters from collaborators willing to participate in the proposed research. Collaborators from AES sites in other states are encouraged. (MU co-investigators imply participation by signature on the Cover Page.)

SUMMARIZE THE CRIS PRINTOUT
   Show how what you propose to do relates to what is being done in other Agricultural Experiment Stations and the USDA.

REFERENCES
   List selected publications of yours and/or others (including those in press) which relate to this proposal.

CURRENT AND PENDING SUPPORT
   List any current, public or private research support (including in-house support), to which key personnel identified in the proposal have time commitments. List pending proposals under consideration or expected to be submitted in the near future. Identify proposals submitted in the last two years that were unfunded.

PRODUCTIVITY SUMMARY
   If principal investigator has been awarded AES funds in the last 5 years, list publications and grant applications submitted for extramural funding -- include complete references for the publications and date, agency and title of submitted grant applications.
VERTEBRATE ANIMALS
Indicate species and number to be used.

Attachments:
(1) Principal Investigator and Co-Investigator(s) biosketch(s) (maximum 3 pages each).
(2) Animal and/or biosafety approvals (if available). (Funds cannot be released unless approved Animal Care and Use Protocol certification statement received in Grants Office.)
(3) Completed Information Needed to Complete CRIS (Current Research Information System) Forms. (Please submit a Word version of the CRIS form with proposal.)

2. Faculty, at the assistant professor level or above, of the College of Veterinary Medicine are eligible to submit proposals. Tenure, teaching, clinical, and research track faculty are eligible. Each faculty member acting as Principal Investigator may submit no more than one proposal for committee review. Faculty NEED NOT HAVE AN AES APPOINTMENT TO APPLY. However, faculty without an AES appointment will need to file a 2-year AES PROJECT based on this grant proposal with the College of Agriculture Food and Natural Resources (CAFNR) and will need to fulfill the annual reporting requirements.

3. If you have questions about the proposal, please contact Donna Stearns (882-2081) prior to submission.

4. Priority ratings will be given to each proposal. Budgetary restrictions may make it impossible to fund all approved requests. Proposals likely to generate outside funding are prioritized.

5. Publications resulting from research funded by this proposal should contain a credit line as follows: "Supported in part by a Committee on Research Grant from the College of Veterinary Medicine, University of Missouri-Columbia."

SUBMIT ORIGINAL, SEVEN (7) COPIES, and an electronic copy of the application.

PROPOSALS MUST BE RECEIVED IN W203 VETERINARY MEDICINE BUILDING (Donna Stearns), by 4:30 p.m., Monday, October 15, 2012, TO BE CONSIDERED.