

## **GENERAL INSTRUCTIONS**

### **FORMAT SPECIFICATIONS**

*Follow font and format specifications. Otherwise, application processing may be delayed, or the application may be returned to the applicant without review.*

#### **Font**

- For all text portions of the document use an Arial or typeface and a font size of 11 points or larger (lettering in charts, figures, etc. may be smaller, see below). A Symbol font may be used to insert Greek letters or special characters; the font size requirement still applies.
- Type density, including characters and spaces, must be no more than 15 characters per inch.
- Type may be no more than six lines per inch.
- Use black ink that can be clearly copied.
- Print must be clear and legible.

#### **Page Margins**

- Use standard size (8 ½" x 11") sheets of paper.
- Use at least ½ inch margins (top, bottom, left, and right) for all pages, including continuation pages.

#### **Application Paging**

- The application must be single-sided and single-spaced.
- Consecutively number pages throughout the application. Do not use suffixes (e.g., 5a, 5b).
- Do not include unnumbered pages.

#### **Figures, Graphs, Diagrams, Charts, Tables, Figure Legends, and Footnotes**

- You may use a smaller type size but it must be in black ink, readily legible, and follow the font typeface requirement.

#### **Photographs and Images**

- Do not include photographs or other materials that are not printed directly on the application page in the body of the application. Pictures or other materials that are glued or taped onto application pages are incompatible with the current duplication/scanning process.
- You may include black-and-white or color images in the three (3) submitted copies provided such images are printed directly on the application page and are critical to the content of the application.

#### **Copies**

- Original (signed by principal investigator and an authorized organizational official) and three (3) exact, legible, single-sided photocopies

- An electronic version should also be submitted to [Morscher.1@osu.edu](mailto:Morscher.1@osu.edu)
- Do not use photo reduction.
- The application must contain only material that reproduces well when photocopied in black and white. Glossy photographs or other materials that cannot be photocopied must be submitted in three (3) collated sets as appendices.

### **Grantsmanship**

- Use English and avoid jargon.
- If terms are not universally known, spell out the term the first time it is used and note the appropriate abbreviation in parentheses. The abbreviation may be used thereafter.

### **Page Limitations and Content Requirements**

- All applications and proposals for funding must be self-contained within specified page limitations.

**TITLE:** Self Explanatory

**PAGE 1 (FORM – COVER PAGE)**

**PAGE 2 (FORM – TECHNICAL AND LAY ABSTRACTS, AND PERSONNEL)**

**Technical Abstract:** concise summary of the proposal including, but not limited to, specific aims, methods and procedures, expected outcome and significance. Separate page, 300 word limit. **Lay Abstract:** provide a summary of the proposal in layman's terms, 150 word limit.

**PAGE 3 (FORM - FIRST YEAR BUDGET)**

A. Personnel (list percentage of time to be devoted by each person)

Principal Investigator

Co-Investigator(s)

Graduate Research Assistant

(In general, Council does not fund graduate student stipends unless there is a compelling justification to do so)

Research Technician

(If only asking for partial support, show how the rest of the person's salary is supported in the cost justification section)

B. Animals and Per Diem

Justify prices of animals (e.g.-conditioned vs. non-conditioned animals)

C. Equipment

Specify the actual reason for allocation of monies for equipment use (including site and supervisor of equipment)

D. Expendable Supplies

Identify by category and show estimated cost for individual items for each category

E. Veterinary Teaching Hospital Costs

Identify and itemize costs of supplies and services to be charged to the OSU Veterinary Teaching Hospital (i.e. laboratory tests, anesthesia fees, surgical suite fees, etc.). These monies will be placed in a veterinary teaching hospital account designated for this project.

F. Other

Include services that are **non-veterinary teaching hospital** to be purchased such as laboratory test, anesthesia fees, surgical suite fees, statistical analyses, literature search, etc.

G. Cost Justification

Include justification for the per cent effort of including graduate students if applicable; include justification of animal purchase price {conditioned vs unconditioned}; justify equipment purchase if applicable; where partial support is requested for personnel, include source for the remainder of the salary.

H. Total Direct Costs

I. 10% College F&A

Canine and Paladin Fund maximum budgets are set at \$25,000. This figure includes Direct and Indirect costs. USDA Animal Health maximum budget is \$15,000. Equine Research Funds: maximum total budget is \$10,000 for one year grants.

Canine Resident Thesis Projects: Maximum budget is set at \$9,000. This includes both Direct and Indirect costs.

J. Total Project Costs

**PAGE 4 (FORM - TOTAL BUDGET AND JUSTIFICATION)**

Follow same format as shown above in First Year Budget

**PAGE 5 (FORM – RESOURCES)**

**PAGE 6 OF GRANT APPLICATION STARTS WITH THE FOLLOWING:**

**I. RESPONSE TO REVIEWER CRITICISMS (for resubmission only)**

If this is a resubmission of a previous proposal, so state and provide the grant number of the previous submission. The following outline should be used to respond to reviewers criticisms – limit to 2 pages.

**A. Reviewer Criticisms and Responses:**

Summarize criticisms and briefly respond to **all** concerns.

Identify the changes in the Research Plan by bracketing [ ] large deletions (multiple sentences or paragraph(s)) and drawing a vertical line in the left margin by additions or rewording. *Do NOT underline or shade changes.*

**B. Preliminary Data**

Summarize preliminary data or work in progress which supports point A above.

**II. RESEARCH PLAN** (Limit 8 pages (sections A-F), excluding literature cited)  
All tables, graphs, figures, diagrams, and charts must be included within the 8 page limitation. **Font to be used is 11 point Arial and margins must be at least ½ inch in all directions.**

*\*Proposals exceeding this page limit will not be reviewed.\**

**A. Specific Aims:** (recommended length: 0.5-1 page)

1. Statement of hypothesis.
2. Describe the objectives or specific aims.

**B. Significance:** (recommended length: 2 pages)

1. Briefly review the literature including significant points and/or the current status of the field.
2. Describe how your proposal will contribute to the general knowledge of the area of study including novel concepts and potential applications.
3. Also describe how your obtained results are furthering your research program and its future funding.

**C. Species/Program Relevance:** (recommended length: 0.5 page)

Demonstrate that the investigation is relevant to the funding source.

**D. Preliminary Data:** (recommended length: 1 page)

If available, present preliminary data, including figures and tables, or work in progress which support your hypothesis and/or your suggested methodology.

**E. Experimental Plan:** (recommended length: 3-4 pages)

Provide details of your research plan, including a description of the experiments, species, and techniques employed. If possible, subdivide this section into the following subheadings:

1. Experiment 1: Title

- a. Rationale: e.g. Why the experiment will be performed
- b. Experimental Design: Provide details of the methods and procedures used in the experiments. Provide adequate data. Be comprehensive enough so that reviewers can assess technological aspects of the proposal separately from the experimental plan. Provide evidence that the

investigator and/or his/her collaborators are competent to perform the experiments as outlined.

- c. Data Analysis: Clearly indicate the experimental outcomes and describe the plan for using the data to answer the specific aims (statistical consultation may be beneficial).
- d. Expected Results.
- e. Limitations, Potential Pitfalls and Alternative Approaches.

F. Time Line for the Experimental Plan

G. Literature Cited: Self explanatory

### III. INVESTIGATOR INFORMATION

A. Plan For Future Support (recommended length: 0.5 page)

Outline your plan for utilizing these results to help obtain extramural funding of your research program. Include plans for publications and presentations at scientific meetings.

B. Previous Intramural Funds Record

Explain how previous intramural funding received in the past five years from any source, has been used to enhance the PI's research program and apply for extramural funding; include extramural grant application information [title, funding agency, submission date, direct cost], publications, and graduate student thesis arising from these funds.

C. New Area of Investigation

If this is a **new** area of investigation for the PI, describe how this integrates with other research programs in the College/University and availability of research collaborators with expertise in this new area.

D. Role of Investigators

Describe the roles of the PI and Co-Investigators, including descriptions of graduate student roles, the relationship of this proposal to their achieving their degree and time schedules for the graduate student.

E. Project Integration

Describe how this project integrates with and facilitates collaboration among other programs in the College and/or University.

F. Letters of Cooperation

Letters of Cooperation- letters of cooperation outlining the proposed investigative contribution must be included from any participant in the proposed study (i.e. co-investigator, research collaborator) excluding graduate students.

**G. Curriculum Vitae**

Curriculum vitae in 4-page NIH format for **all** investigators listed on the front signature page and/or on the budget of the grant.

Website for the NIH format is as follows:

<http://www.grants.nih.gov/grants/funding/phs398/biosketch.doc> or  
<http://www.grants.nih.gov/grants/funding/phs398/biosketch.pdf>

**IV. APPENDICES**

Appendices shall be **limited to** manuscripts accepted for publication or published, data collection forms, or statistical calculations in **direct** support of the grant proposal.

**ANIMAL CARE ISSUES (Animals or Tissues)**

(#5 on Cover Page)

**K. Use of Research Animals**

An approved ILACUC protocol is required prior to any funds being awarded as a result of this application. The website for an ILACUC form is: <http://orrr.osu.edu/iacuc/>

**L. Use of Client Owned Animals**

Approval from the Clinical Research/Teaching Advisory (CRAC) Committee is required prior to any funds being awarded as a result of this application. Include a copy of the owner consent form.

**Suggestions from the Council for Research:**

Listed below are the most common deficiencies identified by the Council for Research during their review of intramural grants. These deficiencies lower the enthusiasm of the reviewer for the grant and affect the grant score. Every effort should be made to address each item on the list in the appropriate place in the grant.

1. Include a good, thoughtful hypothesis that can be tested.
2. Pay attention to statistics. If this is not your strength, seek a collaborator that can help with experimental design and data analysis; i.e. power calculation. The Office for Research can help identify potential collaborators.
3. Make sure the appropriate collaborators are included in areas of specialty. For example, if your study calls for histological interpretation, you may want to include a pathologist.
4. A sign of a well developed grant proposal is the recognition of pitfalls and potential problems. Be sure to include this information in the grant write up and provide a brief description of alternative approaches.
5. Feasibility is paramount. Can the proposed work be completed in the time available and within the budget limits? If not, reduce the size of the study.
6. A clear plan of how intramural funding will be used as seed money to develop extramural grant opportunities is important and should be included.

7. Be sure to justify the proposed studies are relevant to the funding source. For example, canine funds are meant to support research relevant to dogs. If you propose using mice instead of dogs to study a dog disease, you need to make the case for doing so.
8. Sloppy grant writing suggests a lack of preparation and is a sign that the PI is not serious about the proposed work. The reviewers may be equally disinterested in funding the study.
9. If animals or animal tissue (from any source or species) are used in the grant, the appropriate ILACUC or Hospital Board approval is necessary.
10. Reviewers are aware of most of the costs of goods and services for doing research. Any cost that seems outside the expected norm should be justified.
11. If a graduate student participates in the grant, the following questions need to be addressed:
  - Will the research be a part of the student's thesis or dissertation?
  - Will the student be available to participate in the grant through the end of the grant period?