



***GUIDELINES
FOR
SUBMISSION***



***APPLICATIONS
FOR
RESEARCH SUPPORT***



***AMERICAN CANCER SOCIETY
INSTITUTIONAL RESEARCH GRANT***



GENERAL INFORMATION
AMERICAN CANCER SOCIETY
INSTITUTIONAL RESEARCH GRANT

PURPOSE:

The stated purpose of the American Cancer Society Institutional Research Grant (ACS IRG) is "...to serve as 'seed' money to initiate promising new projects or novel ideas by junior investigators". PROJECTS MUST HAVE A DEFINABLE RELATIONSHIP TO CANCER AND THIS RELATIONSHIP MUST BE CLEARLY DOCUMENTED IN THE APPLICATION.

ELIGIBILITY

Assistant Professors, in the tenure or research tracks, throughout the University of Kentucky who do not already have substantial extramural funding are eligible to apply for an award. Research track associate professors may also apply providing they are within the first six years of their independent position, as required by ACS guidelines, and do not have substantial extramural funding; applicants in this category should seek approval prior to applying. NOTE: Research Career Development Awards which cover only salary are exempt from the extramural funding restriction, but the restriction applies to any project, whether it is cancer-related or not. Investigators who have been previously funded by the ACS IRG can submit continuations of their current proposal but are not eligible for new proposals. However, priority will be given to those who have not received previous ACS IRG funding. *Faculty who have questions or concerns about eligibility should contact the Cancer Center (J. Bybee, jennifer.bybee@uky.edu) prior to grant application submission.*

Successful applicants must have a proven research ability in the area of the proposed study, a promising project in cancer research with potential for further studies and realistic plans for future applications to NIH or other extramural granting agencies.

Post-doctoral fellows, Research Associates, and senior faculty members (Associate or Full Professors) are not eligible for this award program.

GENERAL NOTES

ACS IRG funds are limited to a maximum of \$30,000 per grant.

The annual renewal of the ACS IRG parent grant to the University of Kentucky depends on the documentation of progress on all projects supported through this mechanism, as judged by the generation of independent extramural funding and peer-reviewed publications. Each investigator who receives an IRG Award from the American Cancer Society is required to acknowledge support from this grant in all appropriate publications and to submit annual summary progress reports, including lists of publications and abstracts, as well as listings of any grant funds obtained as a result of the ACS funding.

A signed statement from a designated mentor is required. Applications must be submitted electronically as a PDF format.

All funds awarded by December 31, 2022 should be spent by December 31, 2023. No-cost extensions can be considered on a case-by-case basis.

FORMAT OF APPLICATION

Required Sections:

NOTES: Internal Routing Forms are NOT required prior to grant submission. If the grant is funded, an electronic Internal Approval Form (eIAF) will be required. While pre-approval for radiation, biohazards, animal studies, and human subjects is not required for review, documentation of these approvals are required prior to grant award and before such studies can be initiated. The ACS IRG does not cover faculty salary or indirect costs (a policy statement of the ACS regarding indirect costs is attached to assist in routing). It is recommended that faculty salary cost share be discussed with the applicant's chairman prior to submitting the application.

Clinical trial protocols may be added to complete applications as an addendum. This allowance should not be used to circumvent page limits of the application. In particular, rationale for the study and a justification and description of its statistical methods and analyses should be included in the application in Section 5: Description of Proposed Research.

- 1. BIOGRAPHICAL INFORMATION (page 18.1):** This section provides information about the principal investigator. *Note that a signature of the Department Chair is required.*
- 2. PROJECT TITLE (page 18.1):** Provide a succinct title that accurately describes the proposed research.
- 3. ABSTRACT (Page 18.1):** A brief summary of the proposed research in layman's terms, including Background, Objective/Hypothesis, Specific Aim(s), Study Design, and Cancer Relevance. *Limited to a maximum of 300-500 words.*
- 4. PLANS FOR FUTURE EXTRAMURAL SUPPORT (Page 18.2):** A brief overview, in layman's terms, of the anticipated strategy to pursue extramural support, if this grant is funded. This may include the names of agencies to be targeted for future support, potential internal and external collaborators, and possible mentors for future grants. *Limited to a maximum of 250 words.*
- 5. BIOSKETCH:** The application must be accompanied by an NIH-style biosketch that clearly outlines the applicant's education, training, appointments, other research support, and publications. Please insert this after application form page 18.2.
- 6. DESCRIPTION OF PROPOSED RESEARCH (Form page 18.3)**

This section should be typewritten, single-spaced, with a character size of 11 pt. Arial font or 12 pt. Times New Roman font. Sections B-F must not exceed 6 pages.

A. Introduction

For resubmitted applications only. This section can describe any changes that were made in response to reviewers' critiques. Awardees wishing to request a second year of funding should use the introduction section to justify why a second year of funding is needed. This section must be limited to 1 page maximum.

B. Specific Aims

A realistic and concise statement of research objectives should be provided, hypothesis(es) to be tested and specific aims. (a maximum of 1 page recommended).

C. Background and Significance

A brief summary and critical evaluation of existing knowledge relevant to the subject area should be presented. Specific extensions of knowledge which the proposed research is intended to provide should be identified. The relationship to cancer should clearly be spelled out here. (a maximum of 1 page recommended)

D. Statement of Cancer Relevance

Provide a brief statement explaining the potential relevance of the proposed work to cancer and the American Cancer Society's mission of eliminating cancer as a major health problem.

E. Preliminary Studies

This section should be used to document the feasibility of the experimental approach and the experience/competence of the Principal Investigator in areas related to the proposed investigations. Data previously generated by the Principal Investigator relevant to this project, and, in particular, any preliminary data supporting the hypothesis and approach, is extremely important. (1-2 pages recommended)

F. Experimental Design and Methods

Discuss the experimental design and the procedures to be used to accomplish the specific aims of the project. Describe the protocols to be used and provide a tentative timetable for the studies, keeping in mind the fact that the aims should be achieved within the one-year funding period. Include the means by which data will be analyzed and interpreted. Describe any new methodology and its advantage over those currently in use. Discuss potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims. This section should emphasize the scientific issues rather than technical details. (3-4 pages recommended).

NOTE: The ACS IRG provides funding to promising young investigators in the area of cancer research, with the hope that this funding will lead to peer-reviewed publications and extramural funding. Thus, while it is reasonable to think of these grants as a means to generate pilot data for future funding, the intent is to support scientifically sound, hypothesis-driven research. Projects that are judged to be "fishing expeditions" will generally be viewed negatively by the ACS IRG review committee.

G. Ethical & Safety Aspects of the Proposed Research (no page limit)

1. Human Subjects: If human subjects are to be used, IRB approval is required
2. Vertebrate Animals: If vertebrate animals are to be used, provide justification for use and numbers required, along with efforts that will be used to minimize stress. IACUC approval will be required before any animal studies can be initiated.
3. Biohazards: Point out any procedures, situations, or materials that may be hazardous to personnel and the precautions to be exercised to minimize the hazards. Approval as warranted (IBC, Radiation Safety) is required.

Reminder: IRB, IACUC, IBC and/or Radiation Safety approval are NOT required for application review but must be obtained before any experiments can be initiated. Applicants who have already submitted IRB protocols for clinical studies may append their protocols to the application. However, the appended protocol SHOULD NOT be

used to get around page limits of the application. It is expected that the body of the application should contain the needed information to judge the worthiness of the project for funding.

H. Literature Cited (no page limit)

References for all cited work should be included in a single listing in this section. Format is optional, but each citation should include the names of all authors, the title of the article, the name of the book or journal, the volume number, page numbers, and the year of publication.

7. BUDGET (Form Page 18.4):

General Guidelines

Funds from the American Cancer Society Institutional Research Grant may be used to support the following:

- a. Research supplies and animal maintenance
- b. Technical assistance
- c. Domestic travel when necessary to carry out the proposed research
- d. Publication costs, including costs of reprints
- e. Costs for computer time
- f. Special fees (pathology, photography, etc.)
- g. Stipends for graduate students and postdoctoral assistants if their role is to promote and sustain the project presented by the junior faculty member.
- h. Equipment costing less than \$2,000 (Special justification needed for items exceeding this amount)
- i. Registration fees for scientific meetings

The funds may not be used for:

- a. Per diem charges for hospital beds and/or ordinary medical care
- b. Non-medical services to patients
- c. Tuition
- d. Foreign travel
- e. Secretarial and administrative salaries
- f. Rental of office or laboratory space
- g. Construction, renovation or building maintenance
- h. Books and periodicals
- i. Office and laboratory furniture
- j. Office equipment and supplies
- k. **Salary for the PI or other faculty**
- l. Recruiting and relocation expenses
- m. Dues and memberships in scientific societies
- n. Honoraria and travel expenses for visiting lecturers

NOTE: This grant mechanism does not permit indirect cost assessments (policy attached below).

Specific Budget Elements

NOTES: "**Term**" for Spring review cycles is June 1 of the current year through May 31 of the

succeeding year. "Term" for Fall review cycles is December 1 of the current year through November 30 of the succeeding year. **Awardees must obtain any necessary approvals (IACUC, IRB, etc) prior to the award start date.** Although IACUC and IRB approvals are not required at the time of application, applicants are encouraged to begin seeking those approvals without waiting for confirmation of funding status.

Remember that ACS-IRG funds may not be used to support faculty salary. As the budget is developed, however, the PI and any co-investigators committing effort should be aware that their department will be responsible for supporting the cost share for their effort if their application is funded. PIs and co-investigators may want to discuss this with their department chair(s) prior to submitting the application.

A. Personnel

Individual allocations through the ACS-IRG mechanism are limited in size and are not designed to provide full-time technical help. The junior investigator may need occasional technical support (for items such as the preparation of pathology specimens, photographic expertise, setting up extensive experiments, etc.) and in such instances limited technical support may be included. Support of a full-time technician for a brief period of time is usually unrewarding in terms of accomplishment and has been viewed in the past as subsidization of other ongoing activities. An Institutional Research Grant is not to be used as a general purpose fund to compensate for errors in budgeting and overspending or unexpected losses of funds from established research programs.

Personnel and co-investigator roles in the research project must be clearly defined in the budget justification section. If student support is requested, the name of the student should be identified, his/her activities should be clearly specified, and it should be stated whether or not this work will be part of a dissertation project.

B. Permanent Equipment

Equipment items costing in excess of \$300 should be addressed in the "Budget Justification" section and should be clearly necessary for the project, as identified in the project narrative and/or "Materials and Methods" sections.

C. Supplies

A listing of supplies and other materials and their associated costs should be outlined in as much detail as possible in the limited space provided. Specific chemicals should be clearly labeled (e.g., radioactive isotope ^{14}C -5-hydroxyindoleacetic acid rather than "isotopes"). Chemicals requiring custom synthesis should be designated as such, and an approximate cost indicated.

D. Miscellaneous

1. Services: Charges for computer time, duplicating/printing, publication, core facility use, and other services should be listed in this budget category. Note that proposed uses of central computing services must have signed approval from an authorized staff member of the computing facility to be used.
2. Animal Care: Costs for the purchase and maintenance of animals should be given,

including the numbers and species of animals to be purchased, composite daily maintenance charges, and costs for any special procedures to be commissioned.

3. Other: Specify any other costs proposed and justify as needed.

Budget Justification

Outline in this section the justification for all major cost items. Note their specific relationship to the project and to other resources available for this project through departmental or other sources. If necessary, one additional page may be used.

8. MENTOR'S CHECK LIST AND LETTER (FORM PAGE 18.5)

The ACS IRG is a mentored grant mechanism requiring input from a designated mentor as a required element of the application process. A senior faculty member who will serve as the mentor and additional mentoring committee members can be included. A major objective of the ACS IRG – and a primary goal of the Markey Cancer Center – is to prepare aspiring independent investigators for the highest level of success in an increasingly competitive environment for research funding. Toward this end, a completed Mentor Sign-Off form providing documentation that the mentor has read the application and offered constructive guidance on both the scientific merit of project proposed and the proposal presentation is required. In addition to this signed form, the application packet should include a letter from the mentor, including a description of their role in developing the proposal, their commitment to mentoring the applicant for future success, and independence as a researcher. The letter also may include additional information (e.g. additional mentors, mentee qualities or available resources) not already included in the application.

An electronic submission (as a PDF) of all above noted sections and appendices must be provided to the Research Communications Office, by or before the announced deadline date. The recipient address is: jennifer.bybee@uky.edu
Questions: 323-1750.

STANDARDS FOR PREPARATION OF RESEARCH PROPOSAL

FOR INSTITUTIONAL RESEARCH FUNDS

Worthwhile studies may fail to achieve a sufficient priority for funding due to inadequate proposal preparation. It is strongly recommended that the Mentor (and mentoring team, if applicable) take an active role in preparing the proposal to address issues of grantsmanship prior to submission. The intent of the IRG Review Committee critiques is to highlight the strengths and weaknesses of the proposal to assist applicants in their efforts to develop more competitive proposals in the future.

The following suggestions are offered to facilitate the preparation and review of proposals:

1. A proposal should be readable to anyone with an understanding of cancer research, well organized and should follow the proscribed format.
2. The relationship of the proposed study to a cancer-related problem should be clearly stated; anything left to the imagination of the reviewer is at risk of being missed or misinterpreted.
3. The scope of the problem, the rationale for proposed approaches and the feasibility of proposed methodologies must be well documented, with appropriate references and preliminary data where possible.
4. The scientific questions should be hypothesis-driven, clearly focused and experiments must be carefully and realistically designed to yield specific new information within the specified time frame.
5. Methods of data analysis and statistical considerations should be discussed.
6. The budget request must match the scope and specific aims of the project. Where other sources of materials, equipment or expertise are to be made available which will contribute to or directly impact the studies, these should be clearly documented.
7. Collaborations proposed and directly impacting the study must be documented by letters of commitment to support the project.
8. Evidence of official clearance for human subjects, animal usage, hazardous materials, controlled substances and radioactive materials must be submitted before such studies can be initiated.

NOTE: Failure to submit a complete application or to submit necessary supporting documentation may result in administrative withdrawal of the application prior to review.

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American Cancer Society Institutional Research Grant Policy on Indirect Costs

Indirect costs are not allowed on Institutional Research Grants.

The following page from the [ACS-IRG policies](#) (January 2019) can be included with the electronic Internal Approval Form (eIAF).

22. ALLOCATION AND EXPENDITURE OF FUNDS

Funds must be allocated by the local IRG Committee before the expiration date indicated in the award letter. Individuals have one year from the time of receipt of their pilot project grants to spend their allocations, **even if this extends past the end date of the entire IRG.** An institution can decide internally to extend the term of an individual pilot project grant so that funds can continue to be available to complete the project. Once the award is made to the individual grantee, the Society generally considers the funds expended. However, if unspent funds for an individual pilot project award occur, they must be either competitively reallocated by the institutional IRG committee to another project grant, or, if this is not possible, returned to the ACS at the time of grant termination and submission of the Final Report of Expenditures. (Examples of a need to reallocate awarded funds include premature award termination due to departure of the funded investigator, or, early termination of the project for scientific reasons or successful NIH funding.)

An institution cannot have more than one IRG in effect at any one time. If the entire IRG award made to an institution is not spent within the normal term of a grant, the unallocated funds cannot be carried forward to a renewal IRG or to any other grant. (However, funds may be carried forward to subsequent years of the same IRG. Thus, the number of pilot projects awarded in each year of a grant is at the discretion of the local IRG Committee.)

EXPENDITURES ALLOWED

- Research supplies and animal maintenance
- Technical assistance
- Domestic travel when necessary to carry out the proposed research program
- Publication costs, including reprints
- Costs of computer time
- Special fees (pathology, photography, etc.)
- Stipends for graduate students and postdoctoral assistants if their role is to promote and sustain the project presented by the junior faculty member
- Equipment costing less than \$2,000. (Special justification is necessary for items exceeding this amount)
- Registration fees at scientific meetings

EXPENDITURES NOT ALLOWED

*The disallowed items below are in addition to those listed earlier in **INSTITUTIONAL EXPENDITURES.***

- Salary of principal investigator (IRG Chair or pilot project grant recipient)
- Honoraria and travel expenses for visiting lecturers

23. INDIRECT COSTS

American Cancer Society grants are not designed to cover the total cost of an IRG Program. The institution is expected to provide the required physical facilities and administrative services. So that more money will be available to the junior investigator, indirect costs are not allowed for Institutional Research Grants.