

Guidance for Conducting Scientific or Scholarly Merit Review of Research

When completing the *Departmental Scientific or Scholarly Merit Review of Research Protocols Involving Human Subjects* form, please consider all aspects of the application. Do not describe the investigator's plans; rather make evaluative statements about the strengths and weaknesses based on criteria described elsewhere. A strong application will contain good ideas, address important issues, and generate confidence that the investigator(s) will make a significant impact. Do not insist on a hypothesis-driven approach if the research is sound and will move the field forward. Focus is important, especially for new investigators. Avoid emphasizing minor technical details, making tutorial comments, or redesigning the investigator's experiments. Put the requirement for preliminary data in perspective such that bold new ideas, young investigators, and risk taking are encouraged rather than stymied. Be concise; longer reviews are not necessarily better... Where possible, try to put the strengths and weaknesses in perspective by indicating their relative magnitude. Do not consider issues outside of scientific or scholarly merit in your critique such as current or past funding levels or personal situations of the investigator.

- (1) Significance: Does this study address an important problem? If the aims of the project are achieved, how will knowledge be advanced? What will be the effect of these studies on the concepts or methods that drive this field?
- (2) Innovation: Does the project employ novel concepts, approaches, or method? Are the aims original and innovative? Does the project challenge existing paradigms or develop new methodologies or technologies?
- (3) Approach: Are the conceptual framework, design, methods, and analyses adequately developed, well integrated, and appropriate to the aims of the project (please consider the appropriateness of the proposed budget and duration relative to the proposed research)? Does the principal investigator acknowledge potential problem areas and consider alternative tactics? If the research involves activities that could have an adverse effect on humans, are the proposed means adequate for protecting against or minimizing such effects.
- (4) Principal Investigator: Is the principal investigator appropriately trained and well suited to carry out this work? Is the work proposed appropriate to the experience level of the principal investigator and other researchers (if any)?
- (5) Environment: Does the environment in which the work will be done contribute to the probability of success? Does the research take advantage of unique features of the environment or employ useful collaborative arrangements? Is there evidence of institutional support?

It is suggested that the peer review group (or Dean, Chair or designees) consider all or part of the following factors:

- a) Scientific or scholarly merit of the proposal.
 - (1) Conceptual adequacy of hypothesis;
 - (2) Clarity and delineation of objectives;
 - (3) Adequacy of the description of the undertaking and suitability and feasibility of methodology;
 - (4) Demonstration of feasibility through preliminary data (if available);
 - (5) Probability of success of project;
 - (6) Novelty, uniqueness and originality; and
- b) Qualifications of proposed project personnel and adequacy of facilities.
 - (1) Training and demonstrated awareness of previous and alternative approaches to the problem identified in the proposal, and performance record and/or potential for future accomplishments;
 - (2) Time allocated for systematic attainment of objectives;
 - (3) Institutional experience and competence in subject area; and
 - (4) Adequacy of available or obtainable support personnel, facilities, and instrumentation.

Scholarly Merit of the Proposed Activity

The following should be taken within the context of the research, the researcher's qualifications (faculty, graduate student, or student) and the purpose of the research.

- a) Is the Scholarly Activity likely to make a new and/or significant contribution to theory, method, or information?
- b) Is the need for Scholarly Activity adequately demonstrated in a review of the literature?
- c) Are the aims of the Scholarly Activity sufficiently clear?
- d) Is the methodology clearly stated and does it relate to both need and aims?
- e) Is the scope, time-scale, and planning of the work appropriate and realistic given the aims of the Scholarly Activity?
- f) Does the applicant's Scholarly record (CV) support the likelihood of a tangible result?
- g) Is there potential for publication or, where appropriate, some other tangible result which serves as an indicator of scholarly or professional achievement in the applicant's discipline?

When finished, summarize the review by answering the following three questions and provide comments concerning each.

- a) Will the research design yield valid results?
- b) Does the research utilize acceptable practice for the discipline?
- c) Does/Do the investigator(s) possess adequate qualifications to conduct the research?

The review should then be signed by the Departmental Reviewer or Review Committee Chair and then finally signed by the Dean of the School or College, the Department Chair or Unit Head. The signatory, by University policy, is determined at the appropriate level within the School or College conducting the review.