

# Review Procedures and Sponsor Decision-Making

Foundations and federal agencies have comparable proposal review processes. A panel of experts is recruited from academia, medicine, education, etc., whatever the relevant discipline(s) may be. However, all the reviewers on a panel (four to seven members) may not have the same expertise, and they may not have specific knowledge of your research area. Therefore, you need to make your proposal as clear, concise, informative, and persuasive as possible. Reviewers generally look at whether a proposal focuses on important problems of national need, whether it relates to the sponsor's program goals, and whether the proposed work will lead to results with new knowledge or new applications of existing knowledge. In addition to these general criteria, sponsors may have their own requirements. For instance, the **National Science Foundation** reviews proposals according to the following criteria:

- **What is the intellectual merit of the the proposed activity?**  
Reviewers are instructed to consider the importance of the proposal in advancing knowledge and understanding; the qualifications of the PI or team; the creativity, originality, and organization of the proposal; and access to sufficient resources for project success and effectiveness.
- **What are the broader impacts of the proposed activity?**  
Reviewers consider how well the activity advances discovery and understanding while promoting teaching, training, and learning; how well the proposal broadens the participation of underrepresented groups (e.g., gender, ethnicity, disability, etc.); will the results be disseminated broadly?
- **How well is research and education integrated?**
- **How well does the proposal integrate diversity and broad participation in activities?**

NSF has reiterated its commitment to ensuring the inclusion and participation of underrepresented groups in the projects it funds. NSF now requires that all proposals include a one-page summary that addresses each of the above criteria, the intellectual merit, the broader impacts, and the integration of research, education, and diversity.

The **National Institutes of Health** use the concepts of significance, approach, innovation, investigator, and environment to evaluate its applications.

- **Significance:** Does the study address an important problem? Does it advance scientific knowledge? What will be the effect of these studies on the concepts or methods in that field?
- **Approach:** Are the conceptual framework, design, methods, and analyses adequately developed, well-integrated, and appropriate to the aims of the project? Are potential problem areas acknowledged and are alternatives considered?
- **Innovation:** Does the project employ novel concepts, approaches, or methods? Are the aims (hypotheses) original and innovative? Does the project challenge paradigms, develop new methodologies?
- **Investigator:** Is the PI appropriately trained and capable of performing the proposed activities?
- **Environment:** Does the researcher(s) have access to resources necessary for the success of the project? Is there evidence of institutional support?

In addition to these, NIH considers how well you protect human participants and/or animals; if members of underrepresented groups, such as women, children, or minority group members are recruited for participation in the project (as appropriate to the goals of the research); and the reasonableness of the budget.

## Proposal Scoring

Typically, proposals are scored and given priority ratings. This assessment is based on whether or not the project is sound on technical, scientific, or other grounds, and how well the proposal fits the agency's programs or goals. Although your proposal must receive a high score to be considered, it still does not guarantee funding. Funding is still contingent on the number of highly regarded proposals and the amount of funds available to the sponsoring agency. Whether a proposal is rejected or accepted, most sponsors will provide the Principal Investigator with feedback about the proposal that is often useful in refining your submission for the next funding cycle.

Given all the questions reviewers ask about proposals, there are many reasons why proposals are rejected. Some of the more common reasons given by sponsors include:

- Lack of originality/innovation
- Lack of a rationale or justification
- Unfocused project plan
- Lack of knowledge of current literature and practices in the field
- Uncertainty about the prospects of program continuation after funding ends
- Questions about the appropriateness of the research design and methods.