

# Grantsmanship 101: Developing and Writing Effective Grant Applications

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*This is an Adaptation of the HarborView Medical Center – UW's Presentation on "NIH Databases; Grant Application Submission & Review"*

The Overall Impact score will determine the outcome of the review process!

. The Preliminary Scores initially assigned to your application determine the order of review and whether your application will be discussed.

. The Final Scores assigned will determine the ranking of your application within the funding order of an Institute/Center.

# Scored Review Criteria

- . Significance
- . Investigator(s)
- . Innovation
- . Approach
- . Environment

# Before You Begin Writing

- . Discuss your idea(s) with a senior investigator/mentor, chair/dean, other colleagues, and/or the Vice President for research.
- . Conduct a thorough literature review.
- . Identify an appropriate NIH Institute/Center for your application.
- . Review rosters of appropriate CSR study sections to determine expertise.
- . Communicate with (talk to) Program Officer(s).
- . Communicate with the Office of Research and Grants (Lucy Cort)
- . Determine the correct funding mechanism for your proposal.
- . Obtain all current instructions for the mechanism of choice.

Writing your grant application should be guided by the peer review process!

- Learn how NIH study sections operate.
- Understand the criteria that reviewers must use.

# Reviewers' Guidance and Scoring Sheet

Impact	Score	Descriptor	Additional Guidance on Strengths/Weaknesses
High	1	Exceptional	Exceptionally strong with essentially no weaknesses
	2	Outstanding	Extremely strong with negligible weaknesses
	3	Excellent	Very strong with only some minor weaknesses
Medium	4	Very Good	Strong but with numerous minor weaknesses
	5	Good	Strong but with at least one moderate weakness
	6	Satisfactory	Some strengths but also some moderate weaknesses
Low	7	Fair	Some strengths but with at least one major weakness
	8	Marginal	A few strengths and a few major weaknesses
	9	Poor	Very few strengths and numerous major weaknesses

## Additional Information for Scoring Guidance Table

**Non-numeric score options:** NR = Not Recommended for Further Consideration, DF = Deferred, AB = Abstention, CF = Conflict, NP = Not Present, ND = Not Discussed

**Minor Weakness:** An easily addressable weakness that does not substantially lessen impact

**Moderate Weakness:** A weakness that lessens impact

**Major Weakness:** A weakness that severely limits impact

# Significance vs. Overall Impact

- **Significance:** Does the project address an important problem or a critical barrier to progress in the field? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?
- **Overall Impact:** Reviewers will provide an overall impact score to reflect their assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved, in consideration of the five core review criteria, and additional review criteria (as applicable to the proposed project).

# Overall Impact

- . To evaluate overall impact, the reviewers make an assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved. Reviewers consider the scored review criteria, and additional review criteria (as applicable), when assigning an overall impact score.
- . Likelihood (probability) is primarily derived from the investigator(s), approach and environment criteria.
- . Sustained powerful influence is primarily derived from the significance and innovation criteria.

# Overall Impact (continued)

- . Overall Impact is not a sixth review criterion.
- . Reviewers will write a paragraph summarizing the factors that informed their Overall Impact score.
- . Overall Impact is not necessarily the arithmetic mean of the scores for the five scored review criteria.
- . Overall Impact takes into consideration, but is distinct from, the scored review criteria.
- . Overall Impact is the synthesis/integration of the five core review criteria that are scored individually (and the additional review criteria that are not scored individually).

## Factors Contributing to Poor Review Scores: Significance

- . The research proposed is not significant, exciting, or new.
- . The rationale for conducting the research is not compelling.
- . The knowledge gained from the research would be incremental and would have low impact on the field.

# Factors Contributing to Poor Review Scores: Investigator(s)

- . There is inadequate demonstration (publications) that the investigator possesses the requisite expertise to conduct the proposed studies.
- . Productivity of the investigator has been low, or there have been few recent papers.
- . No collaborators have been recruited to contribute to the proposed project.
- . For new/early stage investigators (N/ES) there is often a need for a more senior collaborator.
- . Insufficient time/effort is devoted to the proposed studies.

# Factors Contributing to Poor Review Scores: Approach

- . The proposed project is overly ambitious.
- . The aims lack focus and the goals of the project are unclear.
- . Not enough detail is provided, especially for methods that are untested.
- . Not enough preliminary data are provided to demonstrate feasibility.
- . The feasibility of each aim is not demonstrated.
- . The proposed experiments do not directly test the stated hypothesis.
- . The proposed experiments are not mechanistic.
- . There is no discussion of limitations, anticipated difficulties, and alternative approaches.

# Factors Contributing to Poor Review Scores: Innovation

- . Innovation is not clearly addressed or articulated in the proposal.
- . The proposal is simply not innovative.
- . The "latest and greatest" technique/tool is proposed for use simply to make the application seem more innovative.

# Factors Contributing to Poor Review Scores: Environment

- . There is little demonstration of institutional support.
- . The necessary equipment is not available, or access to the equipment is limited.
- . Insufficient time/effort is devoted to the proposed studies.
- . Logistics of conducting research at remote sites have not been adequately discussed.