

Grantsmanship 101: Developing and Writing Effective Grant Applications

Session 1: NIH Databases; Grant Application Submission & Review



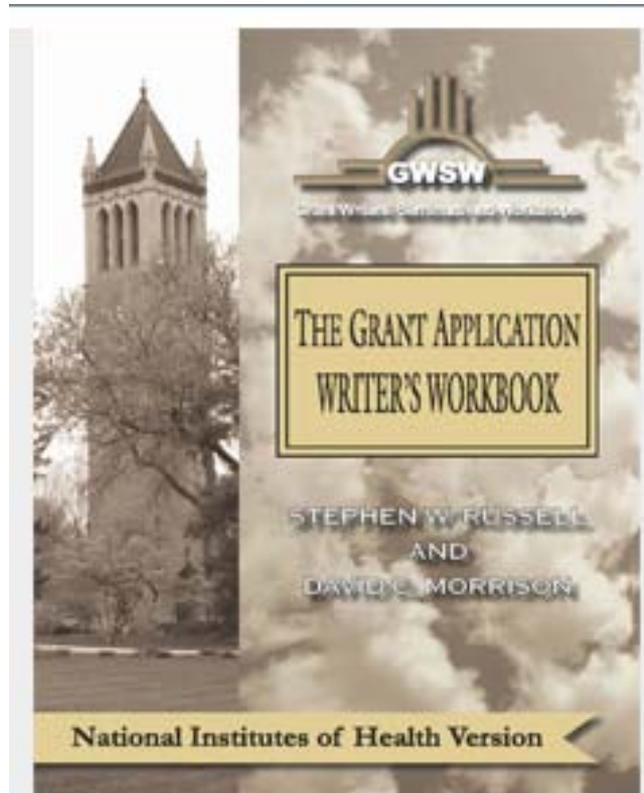
Before You Begin Writing

- Discuss your idea(s) with a senior investigator, other colleagues, and / or the Vice Chair's 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).
- Determine the correct funding mechanism for your proposal.
- Obtain all current instructions for the mechanism of choice.
- Speak with the departmental grants administrator, Ruby Barcega.



Grant Writers'
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Training in the Art of Grantsmanship



<http://www.grantcentral.com/index.html>

NIH Database Searches: RePORTER & NIH Maps



[RePORTER](#)

NIH TOPIC MAPS
A Topic Database of NIH-Funded Grants

[NIH Maps](#)

The Cover Letter

- The cover letter ***should*** include:
 - The title of the grant application
 - The PA or RFA to which the application responds
 - Suggested IC
 - Suggested IRG/study section
- The cover letter ***may*** also include:
 - Suggestions for potential reviewers
 - (Polite) suggestions of names of individuals you would rather not have review your application.

The Cover Letter

Mark R. Opp, Ph.D.
Vice Chair for Basic Science
UW Medicine Research & Education
Endowed Chair in Anesthesiology
University of Washington



28 Jan 2011

Dr. Suzanne Fischer, Director
Division of Receipt and Referral
Center for Scientific Review
National Institutes of Health

Dear Dr. Fischer:

Please find the enclosed a new NIH R01 application for assignment by CSR.

Title: **Sepsis Outcomes and Aging: the Influence of Sleep and the Blood Brain Barrier**
Funding opportunity: **PA-10-042: Critical Illness and Injury in Aging (R01)**

I request this application be assigned to:

- Institutes/Center
 - National Institute of Aging – NIA
 - National Institute of Neurological Disorders and Stroke – NINDS
 - National Heart, Lung, and Blood Institute – NHLBI
- Scientific Review Group
 - Neuroendocrinology, Neuroimmunology, Rhythms and Sleep study section – NNRS

Sepsis is the #1 killer in non-cardiac hospital units and people over the age of 65 are particularly at risk. We propose to use an accepted animal model to determine interactions among aging, disrupted sleep and blood brain barrier permeability as contributors to morbidity and mortality during sepsis. The three ICs requested for assignment of this application are participating in this PA. Each of these ICs has a long history of supporting research of the basic biology of sleep during many different pathologies. Because the application fundamentally focuses on interactions between the peripheral immune system and the brain, the NNRS study section has appropriate expertise to review this application.

Thank you for your consideration of this request. If you require additional information, please do not hesitate to contact me.

Sincerely,



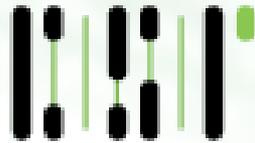
Professor

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

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

The NIH Peer Review Process

national institutes of health



center for
scientific review

the measure and future
of science and health

[Center for Scientific Review](#)

Reviewer Guidance & Scoring Chart

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 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 for the project proposed).

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).

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

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 (NI/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 research 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 hypotheses.
- 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.