THE PEER REVIEW PROCESS

SCIENTIFIC REVIEW OFFICERS (SRO)

JEFFREY DECLUE, Ph.D.

KEN BIELAT, Ph.D.

NCI

DIVISION OF EXTRAMURAL ACTIVITIES

The Review Process

Special Emphasis Panel – ad hoc group-- What is a peer reviewer?

Priority Score

Summary Statement

Resume

Besides the standard five NIH review criteria:

1) Significance
2) Approach
3) Innovation
4) Investigators
5) Environment

Additional PS-OC review criteria will be applied to applications in the determination of scientific merit and the priority score which reflect:

1) Synergy and strength of the Center as a whole;
2) Scientific merit of the proposed organizing framework, projects and facilities; and
3) Scientific merit of the proposed interactions with other awardees in the PS-OCs Network.

SUGGESTIONS

OPEN BOOK EXAMINATION

REVIEW CRITERIA = QUESTIONS

GRANT APPLICATION = ANSWERS

CRAFT YOUR APPLICATION ACCORDINGLY

Review Criteria for Overall PS-OC

1. Significance: Does the overall novel organizing framework based on a physical science question of cancer processes provide a 'fresh perspective' of the disease? What is potential for impact? What will be the effect of these studies on the concepts, methods, and technologies that drive this field?

2. Team Science: Does the proposed structure support and nurture a team science environment that: (1) incubates and tests novel cancer concepts by challenging 'accepted' dogmas; (2) can generate orthogonal sets of physical measurements and integrate them with existing knowledge; and (3) can develop dynamic computational physics model(s) which substantiate(s) experimental results and more importantly provide(s) a comprehensive, predictive model of cancer across multiple length and temporal scales?

3. Facilities: Are facilities adequate for the overall functions of the Center and to implement goals of the PS-OCs program?

4. Integration: Is there evidence of scientific and administrative integration of the proposed PS-OC? Is there evidence of coordination, interrelationships, and synergy among the individual research projects and other components? Are there adequate plans for ensuring effective communication, interaction, and coordination among the PS-OC investigators, PS-OCs Network, and NCI/NIH staff? Do the applicants state their willingness to collaborate extensively and share information, data, software, and other resources fully, consistent with meeting the goals of the program and with the applicant/s submitted statements and applicable grant regulations?

Review Criteria for Center Research Projects

1. Significance: Does this study address an important problem? Does the project complement the overall Center organizing framework?

2. Approach: Are the conceptual design, methods, and analyses adequately developed, well integrated, well reasoned, and appropriate to the aims of the project? Does the applicant acknowledge potential problem areas and consider alternative tactics? Does the project take advantage of the Center infrastructure to allow for alternative tactics of projects to be carried out with minimal time-delay?

3. Innovation: Is the project original and innovative? For example: Does the project challenge existing paradigms or clinical practice; address an innovative hypothesis or critical barrier to progress in the field? Does the project develop or employ novel concepts, approaches, methodologies, tools, or technologies for this area?

4. Investigators: Are the investigators 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? Does the investigative team bring complementary and integrated expertise to the project (if applicable)?

5. Environment: Does the scientific environment in which the work will be done contribute to the probability of success? Do the proposed studies benefit from unique features of the scientific environment, or subject populations, or employ useful collaborative arrangements? Is there evidence of institutional support?

Additional Review Criteria for Shared Research Resource Cores

1. Are the proposed shared resource cores appropriate and within the context of the overarching organizing framework and proposed research activities?

2. Are the plans for prioritizing the use of shared resource cores, for allocating availability to the proposed Research Projects, and for ensuring that the core facilities are used to the fullest extent, including access by non-PS-OC investigators and institutions, feasible and clear?

3. Are the qualifications, experience, and commitments of key personnel for running the facilities appropriate?

Additional Review Criteria for Education and Training Unit

1. Are there sufficient and appropriate technical and scientific expertise, mentoring experience, and available faculty and staff to conduct the proposed training?

2. Is the documented available training infrastructure, such as laboratories, clinics, etc., sufficient for the proposed career development and training activities?

3. Does the proposed training relate to and integrate with the goals of the overarching organizing framework of the PS-OCs?

4. Are the plans for evaluating training and documenting success suitable?

Human Subjects

Human Subjects Protections

Women, Minorities and Children Inclusion

Targeted/Planned Enrollment Table

VERTEBRATE ANIMALS

Address the Five Points for Animal Welfare

BIOHAZARDS

IF MATERIALS OR PROCEDURES ARE PROPOSED THAT ARE POTENTIALLY HAZARDOUS TO RESEARCH PERSONNEL AND / OR THE ENVIRONMENT

CLEARLY DESCRIBE THAT ADEQUATE PROTECTION MEASURES ARE IN PLACE

BUDGET

The Evaluation of the Reasonableness of the Proposed Budget and the Requested Period of Support in Relation to the Proposed Research

Does NOT effect the Priority Score

READ THE RFA SEVERAL TIMES

FOLLOW INSTRUCTIONS CAREFULLY

REVIEWERS WILL EXPECT COMPLIANCE

EXTERNAL ADVISORY BOARD

IT IS OPTIMAL FROM A REVIEW PERSPECTIVE

NOT TO NAME EXTERNAL ADVISORS IN YOUR GRANT APPLICATION

Sample Table of Contents (PHS 398 Form Page 3)

http://physics.cancer.gov/RFA/RFA-CA-09-009-FAQs.asp

This sample form, adapted from the traditional PHS 398 Form Page 3, supplement the written instructions listed in Section IV.2 of RFA-CA-09-009. Instructions listed in red should not be included in final submissions

Program Director/Principal Investigator (Last, First, Middle):

The name of the program director/principal investigator must be provided at the top of each printed page and each continuation page.

TABLE OF CONTENTS (Recommended)

Page ___

Program Director/Principal Investigator (Last, First, Middle):

The name of the program director/principal investigator must be provided at the top of each printed page and each continuation page.

TABLE OF CONTENTS (Recommended) [continued]

Page ___

Highly recommended that applications follow this format style.

DESCRIBE

EVERYTHING

DO NOT ASSUME

ANYTHING

Clarity - Have a peer read your application

What's clear to you is not always clear to everyone

Follow the correct format

Are complete and correct as submitted

Budgets – Justify, Justify, Justify.

Explain Key Personnel for their value to the project, Equipment needs relative to work, high cost line items in any category support with cost and use information.

Follow the instructions closely

Research Plan fits the guidelines

Consistency throughout

Right team for the right plan

Impact can be anticipated

Explain the strengths and limitations in the chosen methodology

Point out potential surprises and alternatives to bypass the pitfalls

Have identified what is needed and can show that it will be available

Phone NIH

Contact information for Program Directors and Referral Officers can be found in the RFA

http://www.csr.nih.gov/Video/Video.asp

Inside the NIH Grant Review Process:
A Video on Peer Review at NIH

The Center for Scientific Review has produced a video of a mock study section meeting to provide an inside look at how NIH grant applications are reviewed for scientific and technical merit.



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