

Peer Review at NIH



Dr. Amy Rubinstein Chief, Oncology 1 – Basic Translational (OBT) Integrated Review Group

NCI Division of Cancer Biology January 12-13, 2022 21st Annual New Grantee Workshop

Review and Funding of NIH Grant Applications



Center for Scientific Review

Division of Receipt and Referral

Assigns to Institute(s) and Review Group

2 weeks

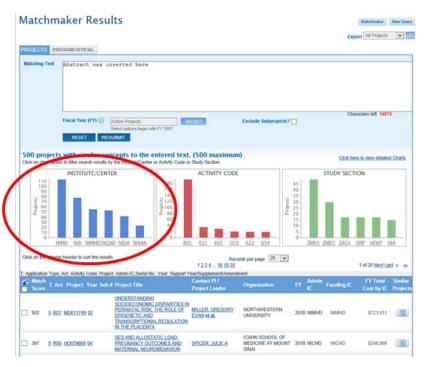
Level I Review: Study Section

Recruits and Assigns Reviewers	2-4 weeks
Reviews for Scientific Merit	4-6 weeks
Meets	1-2 days
Releases Score	~3 days
Produces Summary Statement	~ 30 days

Level II Review: Institute or Center

Evaluates Relevance to Research Priorities	2-4 Months
Council Recommends Action	
Decision	

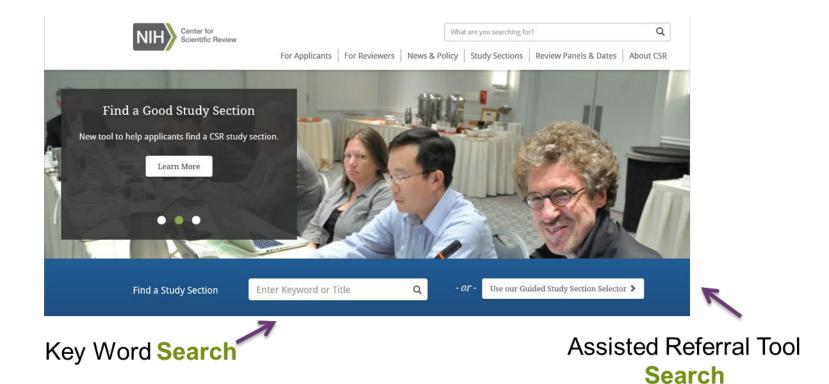
Help Your Application Get to the Right Institute



- Copy abstract/Aims
- Matchmaker Search returns:
 - List of Institutes
 - List of funded grants
 - Link to Program Officials



Help Your Application Get to the Right Study Section



http://www.csr.nih.gov



Assignment Request Form (ARF)

The ARF replaces many functions of the cover letter. Use it to:

- Make assignment requests (study section and institute)
- Identify potential conflicts of interest
- List areas of expertise needed to evaluate the application

You should never suggest specific reviewers



Cover Letter

You can use a cover letter to:

- Explain why your application is late (NOT-OD-15-039)
- Provide notice of plans to submit a video
- Identify your project as generating large-scale genomic data
- Provide pre-approvals (\$500k, conference grants)

You should NOT use a cover letter to:

- Make assignment requests (use the ARF!)
- Suggest specific reviewers (never do this!)



Assignment to CSR Study Sections

Within an IRG, applications are assigned to:

Standing Study Sections

 When subject matter of application matches the referral guidelines for the study section or

Special Emphasis Panels (SEPs)

- When the subject matter does not fit into any study section recurring or for one time conflicts or initiatives.
- When assignment of an application to the most appropriate study section creates a conflict of interest
- When certain types of grants are sought (e.g., fellowships, SBIRs, AREAS)



Reviewer Conflicts of Interest (COI)

What constitutes a reviewer COI?

- Institutional
- Family member/close friend
- Collaborator/Key Personnel
- Longstanding scientific disagreement
- Personal bias
- Appearance of conflict

http://grants.nih.gov/grants/peer/peer_coi.htm



Confidentiality

- Review materials and proceedings of review meetings represent confidential information for reviewers and NIH staff.
- At the end of each meeting, reviewers must destroy or return all review-related material.
- Reviewers should not discuss review proceedings with anyone except the SRO.
- Questions concerning review proceedings should be referred to the SRO.
- Applicants should never communicate directly with any members of the study section about an application.
- Statute of confidentiality is life-long.



Peer Review Integrity Issues

- For concerns or questions about possible violations of peer review integrity contact:
 - Your Scientific Review Officer
 - CSR Review Integrity Officer at: csrrio@mail.nih.gov
 - NIH Review Policy Officer at: reviewpolicyofficer@mail.nih.gov
- For issues related to respectful interactions, bias or anything else that could affect the fairness of the review process, contact your SRO or the CSR Associate Director of Diversity & Workforce Development at G.Fosu_AssocDir@csr.nih.gov.



Before the Study Section Meeting



Each application is assigned to 3 or more reviewers 5-6 weeks in advance

Reviewers Assess Each Application by Providing:

- Preliminary Overall Impact score
- Criterion scores for each of the 5 core review criteria
- Comment on appropriateness of your budget
- A written critique



Reviewing Rigor and Transparency

Research Project Grant Applications

Rigor and Transparency Element	Which applications?	Where in the application?	Which Criteria?	What's added to the review criteria?	Affect overall impact score?
Rigor of Prior Research		Research Strategy	Significance	Is the prior research that serves as the key support for the proposed project rigorous?	Yes
	Research Strategy (Approach)	Approach	Have the investigators included plans to address weaknesses in the rigor of prior research that serves as the key support for the proposed project	Yes	
Scientific Rigor	All	Research Strategy (Approach)	Approach	Are there strategies to ensure a robust and unbiased approach?	Yes
Consideration of Relevant Biological Variables, Such as Sex	Projects with vertebrate animals and/or human subjects	Research Strategy (Approach)	Approach	Are adequate plans to address relevant biological variables, such as sex, included for studies in vertebrate animals or human subjects?	Yes
Authentication of Key Biological and/or Chemical Resources	Project involving key biological and/or chemical resources	New Attachment	Additional review considerations	Comment on plans for identifying and ensuring validity of resources.	No

At the Meeting

Not Discussed Applications

- About half the applications will be discussed
- Applications unanimously judged by the review committee to be in the lower half are not discussed

Clustering of Review

New Investigator R01 & some types of applications are often reviewed together

Order of Review

Applications to be discussed are reviewed in random order within each cluster.





At the Meeting: Application Discussion

- Any member in conflict with an application leaves the room
- Reviewer 1 introduces the application and presents critique
- Reviewers 2 and 3 highlight new issues and areas that significantly impact scores
- All members without a conflict are invited to join the discussion and then vote on the final overall impact score



Scoring

9-point score scale is used to provide:

- Criterion Scores for each of the 5 core review criteria
- Overall Impact/Priority Score based on but not a sum of the core criterion scores plus additional criteria

All applications receive scores:

- Not discussed applications will receive only initial criterion scores from the three assigned reviewers.
- Discussed applications also receive an averaged overall impact score from eligible (i.e., without conflicts of interest) panel members.



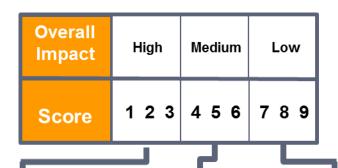
Scoring Overall Impact

Overall Impact:

The likelihood for a project to exert a <u>sustained</u>, <u>powerful</u> influence on research field(s) involved

Evaluating Overall Impact:

Consider the 5 criteria: significance, investigator, innovation, approach, environment (weighted based on reviewer's judgment) and other score influences, e.g. human subjects



1-3 Applications are addressing a problem of high importance/interest in the field. May have some or no technical weaknesses.

4-6 Applications may be addressing a problem of high importance in the field, but weaknesses in the criteria bring down the overall impact to medium.

These Applications may be addressing a problem of moderate importance in the field, with some or no technical weaknesses

7-9 Applications may be addressing a problem of moderate/high importance in the field, but weaknesses in the criteria bring down the overall impact to low.

These Applications may be addressing a problem of <u>low</u> or <u>no</u> importance in the field, with some or no technical weaknesses.

5 is a good medium-impact application



Your Summary Statement

- Scores for each review criterion
- Critiques from assigned reviewers
- Administrative notes if any



If your application is discussed, you also will receive:

- An overall impact/priority score and percentile ranking
- A summary of review discussion

Questions?

Your program officer has the prime responsibility to answer questions about your review and preparing a new application.



NIH's Resubmission Policy

After an unsuccessful new (A0) application or an unsuccessful resubmission (A1) application, you may submit a new (A0) application with the same idea as long as your summary statement has been issued.

The NIH Will Not Accept

- An AO or A1 application that overlaps a funded application
- Simultaneous submissions of overlapping applications
- An AO or A1 application before NIH issues the summary statement of an earlier, overlapping application.

Resubmission FAQs

http://grants.nih.gov/grants/policy/resubmission_q&a.htm



Your New Application Must Be Written as New

Your new (A0) application should not contain information that might bias the review or provide a competitive advantage:

You Cannot Refer to a Previous Review

- No mention of previous score
- No mention of previous reviewer comments
- No mention of how the AO is responsive to previous review
- No marks in text to indicate changes

You Cannot Submit Elements of a Renewal

- No Progress Report
- No Progress Report Publication List



Where Do We Find Reviewers?

- Successful applicants
- Recommendations from reviewers and NIH staff
- NIH RePORTER (http://projectreporter.nih.gov/reporter.cfm)
- NIH PI and reviewer databases.
- Internet
- Scientific conferences



NIH Peer Review Information on the Web

National Institutes of Health: http://www.nih.gov

- Office of Extramural Research http://www.nih.gov/grants/oer.htm
- Grants Policy
 http://www.nih.gov/grants/policy/policy.htm
- Electronic Submission
 http://era.nih.gov/ElectronicReceipt

Center for Scientific Review: http://www.csr.nih.gov

- Resources for Applicants
 http://www.csr.nih.gov/ResourcesforApplicants
- CSR Study Section Descriptions
 http://public.csr.nih.gov/StudySections
- CSR Rosters and Meeting Dates

http://public.csr.nih.gov/RosterAndMeetings

