



A Framework for Evaluating Reviewers

from the Reviewer Evaluation committee

September 18, 2023

Reviewer Evaluation Committee



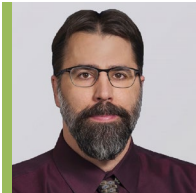
Dr. Elena Smirnova
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Dr. Paul Hewett
SRO, DABP



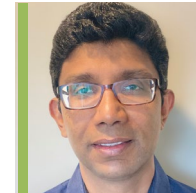
Dr. Lystranne Maynard-Smith
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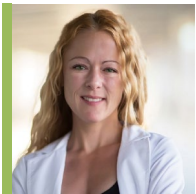
Dr. Kirk Dineley
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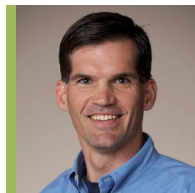
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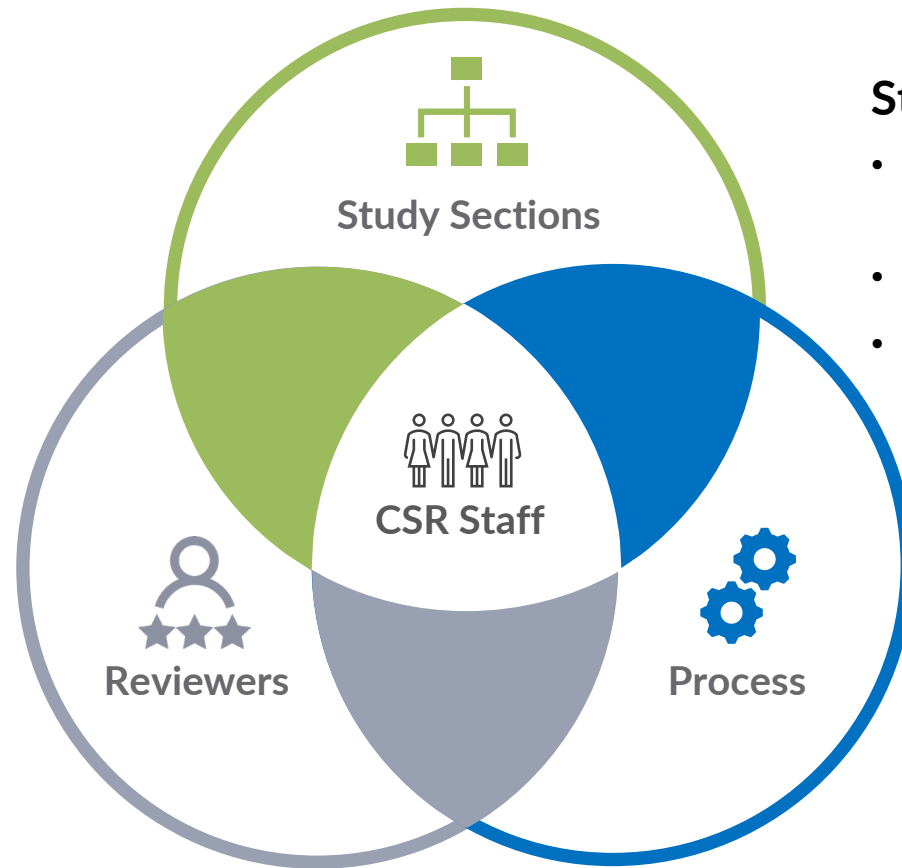


Mr. Leo Wu
Chief, DPAIM



Dr. Joe Rudolph
Chief, DNDA

CSR's Strategic Framework for Optimizing Peer Review



Reviewers

- Reviewers
- Reviewer Training
- Broaden/Diversify Reviewer Pool
- Incentivizing Service
- Reviewer Evaluation

Study Sections

- Scientific Scope (relevance, adapting to emerging areas, not perpetuating stale science)
- Output (identification of meritorious science)
- Size appropriate for competition

Process

- Process
- Confidentiality/Integrity
- Fairness/Bias Mitigation
- Assignment/Referral of Applications
- Review Criteria and Scoring System

Our Strategic Plan emphasizes the importance of peer reviewers



GOAL 2

Further develop a large cadre of diverse, well-trained, and scientifically qualified experts to serve as reviewers.

Quality peer review relies on a diverse,

Goal 2: Objectives

Objective 2.3: Evaluate reviewer performance.

Reviewers and review quality benefit from continuous evaluative feedback. While SROs provide tailored individualized feedback to reviewers, a more formal process for reviewer performance assessment and feedback allows for a uniform, structured, and consistent framework for performance improvement.

Implementation Strategies:

- Develop methods of identifying problematic scoring patterns such as score inflation or score compression.
- Develop methods of screening all critiques for uncivil or unprofessional content.

A formal process for reviewer performance assessment and feedback allows for a consistent framework for performance improvement.

The committee was charged with developing a conceptual framework for evaluating reviewer performance.

Reviewer Evaluation – current activities

Scientific Review Officers

- Read critiques in advance of the meeting and provide feedback to individual reviewers
- Continuously assess meeting participation
- Read revised critiques after the meeting and before summary statement release

What are they looking for?

- Quality of critiques
 - Substantive? Justify the score? Fit review criteria? Free of bias?
- Scoring behavior
- Panel participation/engagement



Variation in what SROs evaluate. What makes a “high quality” reviewer?

Background – Informational Interviews





- Relies on combination of mail and panel reviews
- Non-numeric scoring
- Uses a combination of manual and automated methods to check:
 - Word counts
 - Average similarity scores across reviewers



- Review is outsourced and completed through a contractor company prior to final CDMRP programmatic decisions
- Federal staff do “quality assessment” spot checks. Evaluate for completion, scoring, check for inflammatory language

CIHR

Review Quality Assurance (RQA) program

- Evaluate written critiques, meeting contributions, and procedural compliance for each reviewer
- Criteria-based assessment of critiques
- Do not analyze scoring

- Transparent process
- SROs and Chair complete surveys for each reviewer in a meeting
- Dedicated staff compiles assessments

- Surgical intervention
- Recognition of outstanding reviewers



Evaluation requires a conceptual framework

Domains that characterize a reviewer's performance



- 1 Fair
- 2 Knowledgeable
- 3 Evaluative

The mission of the Center for Scientific Review (CSR) is to see that NIH grant applications receive

fair, independent, expert, and timely scientific reviews – free from inappropriate influences –

so NIH can fund the most promising research.

Fair

The Conceptual Framework

Reviewer

- Adheres only to review criteria
- Uses only information presented in the application
- Open-minded, not limited to preconceived ideas, free of bias



Critiques

- Original and specific evaluation of the application
- Focused on scientific merit, objective assessment
- Professional in tone

Scoring

- Scores and comments are aligned
- Consistency in scoring of all applications
- Adherence to scoring guidance

Meeting

- Clear presentations, focus on score-drivers
- Open to other opinions or viewpoints
- Respectful of other reviewers and applicants

Knowledgeable

The Conceptual Framework

Reviewer

- Applies scientific knowledge, expertise and experience to evaluating applications
- Communicates their expert assessment in critiques and presentation to a broad audience



Critiques

- Critiques are supported by scientifically rigorous judgments
- Critiques convey reasons for evaluation
- Critiques are substantive and insightful

Scoring

- Scores are explained - why an application was given a particular score is clearly articulated

Meeting

- Clear presentation of the scientific assessment to the panel
- Engaged and adding value to panel discussions

Evaluative

The Conceptual Framework

Reviewer

- Uses evidence based declarative statements of strengths and weaknesses
- Distinguishes between applications by scientific merit



Critiques

- Thorough and discerning assessments
- Specific and thoughtful statements
- Original assessments of significance

Scoring

- Scores differentiate between applications
- Clear articulation of why an application was given a particular score

Meeting

- Making own assessments – casting informed scores on all applications
- Not averaging assigned reviewers' scores when they are divergent

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The END