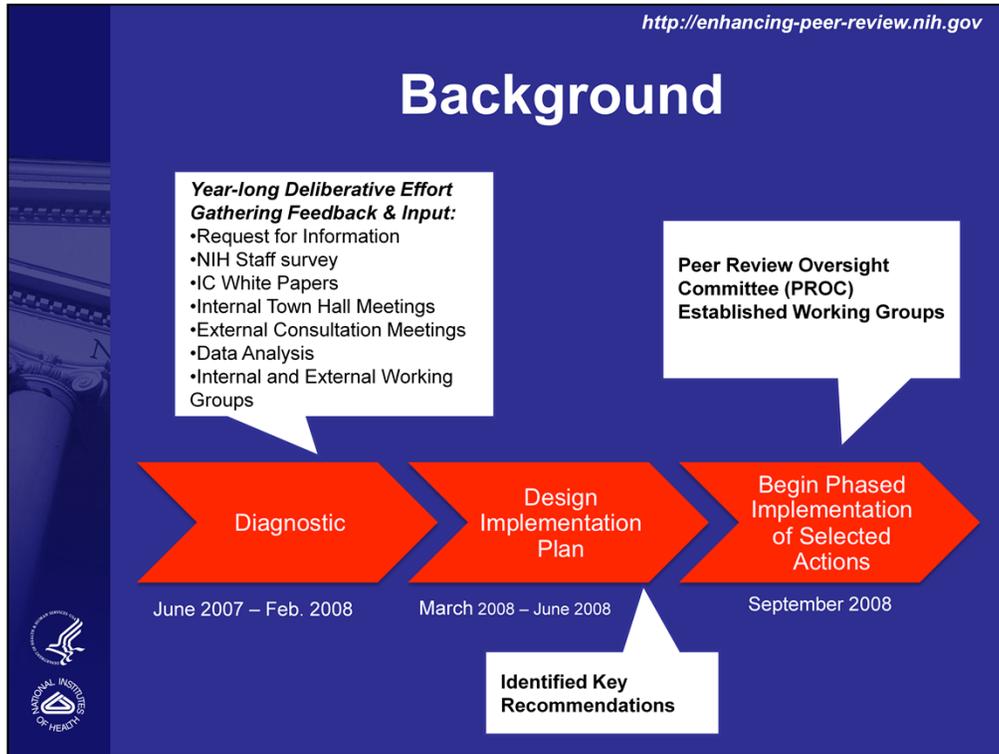# Enhancing Peer Review: Implementation of Recommended Actions

149th Meeting of the
NATIONAL CANCER ADVISORY BOARD
February 3rd, 2009

Lawrence A. Tabak, DDS, PhD

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First phase: DIAGNOSTIC

Year-long Deliberative Effort Gathering Feedback & Input:

Request for Information

NIH Staff survey

IC White Papers

Internal Town Hall Meetings

External Consultation Meetings

Data Analysis

Internal and External Working Groups

Second Phase: Design Implementation Plan

Identified Key Recommendations

Third Phase: Begin Phased Implementation of Selected Actions

Peer Review Oversight Committee (PROC) Established Working Groups:

1. Engage the Best Reviewers
2. Improve the Quality and Transparency of Review
3. Ensure Balanced and Fair Reviews Across Scientific Fields and Career Stages
4. Continuous Review of Peer Review

Priority Area 1 – Engage the Best Reviewers

- **Improve Reviewer Retention**
  - In 2009, new reviewers will be given additional flexibility regarding their tour of duty and other efforts will be undertaken to improve retention of standing review members.
- **Recruit the Best Reviewers**
  - A toolkit, incorporating best practices for recruiting reviewers, will be made available to all NIH Institutes and Centers (ICs) in 2009.
- **Enhance Reviewer Training**
  - In spring 2009, training will be available to reviewers and Scientific Review Officers related to the changes in peer review.
- **Allow Flexibility through Virtual Reviews**
  - Pilots will be conducted in 2009 on the feasibility of using high-bandwidth support for review meetings to provide reviewers greater flexibility and alternatives for in-person meetings.

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Priority Area 2 – Improve the Quality and Transparency of Review

- **Improve Scoring Transparency and Scale**
  - Review criteria-based scoring commences in May 2009
  - Reviewers will provide feedback through scores and critiques for each criterion in a structured summary statement.
  - Scoring and Review Guide Notice: NOT-OD-09-024
    - **9 point rating scale; enhance review criteria with individual scoring; formatted reviewer critiques**
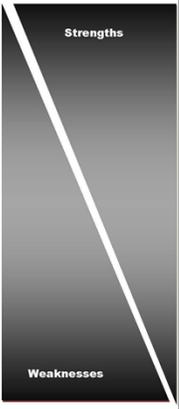
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Criterion Score

9-Point Scoring for Criteria
Significance, Investigator(s), Innovation, Approach, Environment

Score	Descriptor	Strengths and Weaknesses
1	Exceptional	Strengths
2	Outstanding	
3	Excellent	
4	Very Good	
5	Good	
6	Satisfactory	
7	Fair	
8	Marginal	
9	Poor	Weaknesses

Overall Impact Score

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Comparing Previous Priority Scores to New

- Previous priority score scale (100 – 500) had 401 possible values

- Average scores on nine-point scale have 81 possible values (10 – 90)

- Consequence: there will be fewer bins for a similar number of applications yielding an increased need for decision making on an application by application basis
    - Some "select pay" processes may have to be revised to accommodate this

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Priority Area 2 – Improve the Quality and Transparency of Review (cont.)

- **Provide Scores for Streamlined Applications**
  - Currently, applications that are not considered to be in the top half are "streamlined"
    - Streamlined applications are not discussed by the full review committee and have no scoring information but the applicants do receive the reviewers' critiques
  - In 2009, streamlined applications will receive scores on each criterion in addition to the reviewers' critiques to help applicants assess whether or not they should resubmit an amended application

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Priority Area 2 – Improve the Quality and Transparency of Review (cont.)

- **Shorten and Restructure Applications. Shorter (12 page research plan) R01 applications (with other activity codes scaled appropriately) will be restructured to align with review criteria for January 2010 receipt dates**

  Human Subjects Research
  - **ACD expressed unanimous concern about proposal to allow additional pages for Clinical Research citing "fairness" issues**
  - **NIH staff and some extramural clinical research communities have concerns regarding the impact of the shortened research strategy for clinical research and human subjects protections**

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Priority Area 2 – Improve the Quality and Transparency of Review (Cont.)

Human Subjects Research

- To address these concerns we will:
  - Explain that applicants and reviewers will focus on the major ideas, not the details they are accustomed to
  - Provide guidance to reviewers and staff on what additional clarifications may be needed prior to Council or funding consideration
  - Expand the interpretation of what is eligible for the Section E Human Subjects section; limit pages for this section based upon analysis of current usage pattern
  - Future page limits in this section will be imposed if analyses indicated that it was being used inappropriately

Priority Area 3 – Ensure Balanced and Fair Reviews across Scientific Fields and Career Stages, and Reduce Administrative Burden

- **New NIH Policy to Fund Meritorious Science Earlier**
  - NIH will enhance success rates of new and resubmitted applications by decreasing the number of allowed grant application resubmissions (amendments) from two to one
    - Guide Notices NOT-OD-09-003 and NOT-OD-09-016
  - A prebuttal pilot will be designed, tested and evaluated.
- **Review Like Applications Together**
  - **NIH recently announced new policies** modifying the NIH New Investigator Policy to identify Early Stage Investigators (ESIs), and **establishing goals to encourage funding for new investigators and ESIs**
    - Guide Notices NOT-OD-08-121, NOT-OD-09-013 and NOT-OD-09-034
  - In 2009, where possible, NIH will cluster new investigator applications (including ESIs) for review
  - The same approach will be considered for clinical research applications.

Priority Area 4 – Continuous Review of Peer Review

- **Newly constituted evaluation group will lay foundation for continuous review of peer review activities**
- **Ongoing pilots and analyses of historical data**
  - **e.g. February 09 will pilot 1-9 scoring**
- **Baseline surveys are being developed**

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Communications & Training

The Enhancing Peer Review Web Site is continually being updated and features:

- **Up-To-Date Information on Implementation of each Priority Area**
- **Frequently Asked Questions and Answers**
- **Timelines**
- **Information on Pilots**
- **All NIH Guide Notices Relating to Peer Review Changes**
- **Press Releases on Peer Review Changes**
- **Training and Communication Materials**

Other Outreach for both Internal and External Communities:

- **Question/Answer Web Chats**
- **Peer Review ListServ providing up-to-date information**
- **Training Sessions**
- **Monthly published updates in Nexus and Peer Review Notes**
- **Frequent Guide Notices on Peer Review Enhancements**

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