



The NIH Peer Review Process

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2009 NIH Regional Seminars



The NIH Peer Review Process

National Institutes of Health

- **Primary Federal agency in the US for conducting and supporting medical research**
- **27 Institutes & Centers (ICs)**
 - **Extramural and intramural programs**
 - **24 have funding authority**





The NIH Peer Review Process

NIH Peer Review System

- **Two-tiered:**
 - **Initial peer review**
 - **Scientific Review Groups (SRGs)**
 - **I/C Advisory Council or Board (Council)**
- **Per year:**
 - *Nearly 80,000 applications*
 - *Over 18,000 reviewers*





The NIH Peer Review Process

Overview

Application received
Assignments made



Initial peer review

Funding considerations

Scientific Review Group
(Study section, SRG)

Institutes or Centers (ICs)
(Duals possible)

Scientific Review Officer

Program Officer



Second level of review

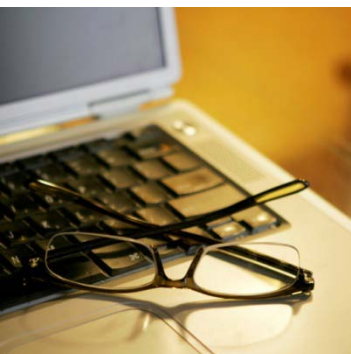
Council



Funding decisions

IC Director →

Award!





The NIH Peer Review Process

Referral

CSR Review

- **Most R01s, fellowships, and small business applications**
- **Some Program Announcements (PAs, PARs), Requests for Applications (RFAs)**

Institute/Center Review

- **IC-specific features**
- **Program projects**
- **Training grants**
- **Career development awards**
- **RFAs**

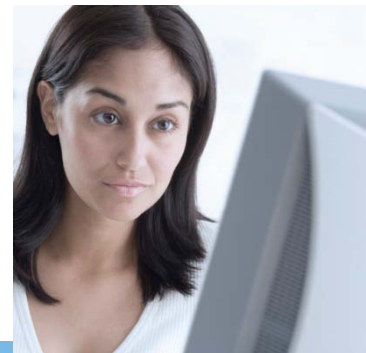




To Request a Scientific Review Group

- **Cover letter of application**
 - Application title
 - FOA # and title
 - Request:
 - Assignment to particular SRG or study section
 - Assignment to particular IC for funding consideration
 - Disciplines involved, if multidisciplinary
 - Explanation for late application

Not all requests can be honored.





The NIH Peer Review Process

Cover Letter of Application

- **List one request per line**
- **Place SRG & IC review requests on separate lines**
- **Place positive & negative requests on separate lines**
- **Include name of IC or SRG,
followed by a dash and acronym**
- **Provide explanations for each request
in a separate paragraph**





The NIH Peer Review Process

Information

- **Center for Scientific Review:**

<http://cms.csr.nih.gov/PeerReviewMeetings/CSRIRGDescription/>

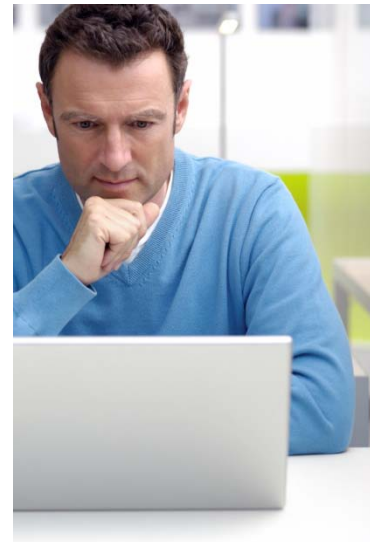
<http://www.csr.nih.gov/committees/rosterindex.asp>

- **Institutes and Centers:**

<http://era.nih.gov/roster/index.cfm>

- **Areas of IC interest:**

<http://www.nih.gov/icd/index.html>





The NIH Peer Review Process

Scientific Review Officer (SRO)

- **Designated Federal Official**
- **Extramural scientist**
- **Identifies and recruits reviewers**
- **Manages conflicts of interest**
- **Oversees arrangements for review meetings**
- **Presides at review committee meetings**
- **Prepares and releases summary statements**





The NIH Peer Review Process

Scientific Review Group (SRG)

“Study Section” Reviewers:

- Expertise
- Stature in field
- Mature judgment
- Impartiality
- Managed conflicts of interest
- Balanced representation
 - Gender
 - Geography
 - Diversity
 - Seniority



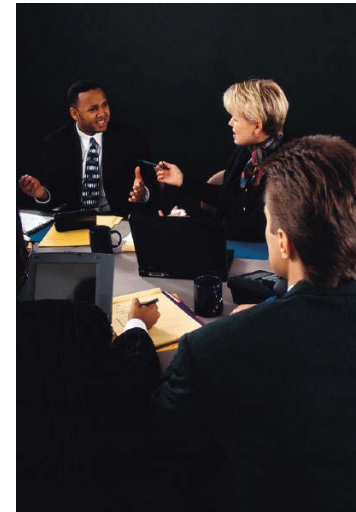
*Remember tomorrow's Mini Session
– How Do I Become a Reviewer?*



The NIH Peer Review Process

Scientific Review Group (SRG)

- **Membership**
 - Sometimes includes lay members
 - May include foreign reviewers
 - Not more than one-quarter may be federal staff
- **Types of SRGs**
 - “Chartered”
 - Multiyear terms
 - Formal appointment process
 - Special Emphasis Panel (SEP)
 - *Ad hoc* membership
 - Often meet only once





Scientific Review Group

- **Regular reviewers**
 - May submit written critiques
 - May submit criterion scores
 - May submit preliminary impact/priority scores
 - May submit final impact/priority scores
- **Telephone reviewers**
 - May submit written critiques
 - May submit criterion scores
 - May submit preliminary impact/priority scores
 - **May *not* submit overall impact/priority scores**





The NIH Peer Review Process

Reviewer Assignments

- \geq Three qualified reviewers (2 + 1)
- Based on scientific content of application
- Expertise of reviewer
- Suggestions from PI on types of expertise – *not names!*
- Suggestions from Program staff
- Managing conflicts of interest
- Balancing workload

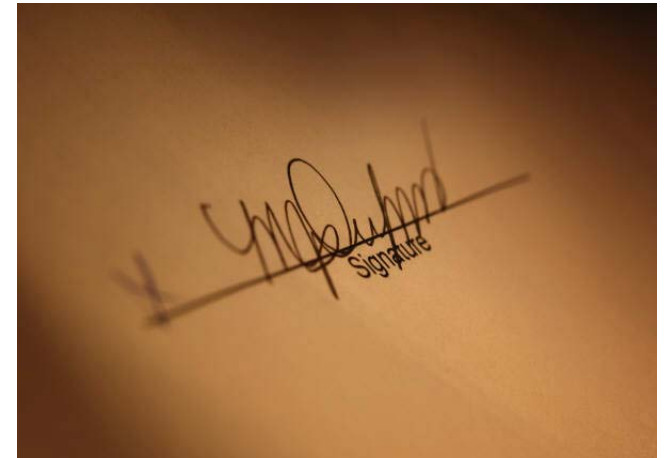




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Conflicts of Interest (COI)

- Financial
- Employment
- Personal
- Professional
- SRG membership
- Other interests



Two COI vouchers submitted by each SRG member

- Pre-meeting
- Post-meeting



The NIH Peer Review Process

Scientific Review Groups (SRGs)

Recommendations:

- Scientific and technical merit
 - Budget and project duration
 - Bars to award – human subjects, vertebrate animals, biohazards
 - Resource Sharing Plans
 - Other administrative factors
-
- ✓ Impact/priority scores
 - ✓ Criterion scores
 - ✓ Written critiques



***Study Sections
do not make
funding decisions!***



Scientific Review Groups (SRGs)

Confidentiality

- All materials, discussions, documents (except those in the public domain)
- Reviewers sent guidance with applications
- All questions referred to SRO
- Closed to the public
- Program staff may observe

Reviewers must sign *two* Confidentiality Certifications!





NIH Scoring System

- Private scoring at SRG meeting
- Numerical scores – *new system*
 - 1.0 (exceptional) to 9.0 (poor)
 - Final impact/priority score =
average of individual scores x 10
 - *New feature* - individual criterion scores
 - Ranked by percentile for certain mechanisms
- Not Discussed - streamlining
- Other designations (NR, DF, AB, NP, etc.)





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Streamlining

- **Allows discussion of more meritorious applications**
 - **Research projects ~ 50%**
 - **Shared instrumentation ~ 40%**
 - **Fellowship applications ~ 30%**
 - **RFAs – pre - arranged limits**
- **Requires full concurrence of SRG**
- **Not discussed at SRG meeting, designated “ND”**
- **Summary statement:**
 - **Reviewer critiques**
 - **Individual criterion scores**
 - **No final overall impact/priority score**





The NIH Peer Review Process

SRG Procedures

- **Call to Order - Chairperson**
- **Policy and instructions - SRO**
- **Discuss each application, where feasible:**
 - **In score order**
 - **Cluster New Investigator applications**
 - **Cluster clinical applications**
- **Scoring**
- **Discuss other considerations**
 - **Budget**
 - **Resource Sharing Plans**
 - **Foreign institutions**





The NIH Peer Review Process

SRG Procedures

Discussion format

- **Members with conflicts excused**
- **Initial levels of enthusiasm stated (assigned reviewers and discussants)**
- **Primary reviewer - explains project, strengths, weaknesses**
- **Other assigned reviewers and discussants follow**
- **Open discussion (full panel)**
- **Levels of enthusiasm (assigned reviewers) re-stated**
- **Individual SRG members vote**
- **Other review considerations discussed (budget)**



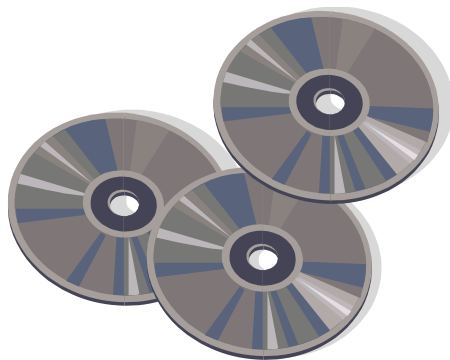
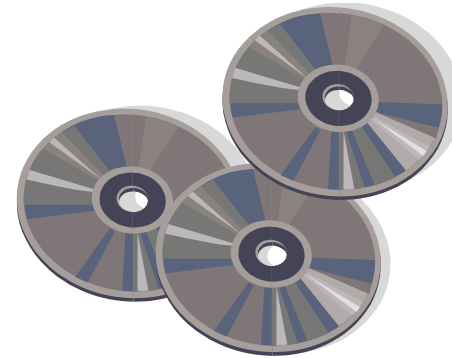


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SRG Procedures

Reviewer workload

- ~ 6 – 8 as “reviewer”**
- ~ 2 – 3 as “discussant”**



Don't assume reviewers will

- See the unstated**
- Grasp nuances**
- Understand your lingo**
- Look things up**
- Read your mind!**



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SRG Procedures

- If 60 applications/SRG meeting
 - ~ 50% streamlined
 - 30 applications to discuss and score
- If 9 hour SRG meeting (8:00 AM – 5:00 PM)
 - ~ 1/2 hour introduction, streamlining
 - ~ 1 hour lunch, 2 x 15 minute breaks
- Leaves
 - ~ 14 minutes/application
 - ~ 3 - 4 minutes/reviewer



Clarity and brevity are essential!



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SRG Procedures

- **Internet Assisted Review**
(http://era.nih.gov/nih_and_grantor_agencies/review_and_decision_making/internet_assisted_review.cfm)
 - Reviewer critiques/preliminary scores
 - Due several days before SRG meeting
- **Acceptance of supplementary material at discretion of SRO**
 - Correcting errors or omissions
 - New data or newly accepted publications
 - Additional letters of commitment
- **Cannot modify application**





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Alternate Styles of Review



- **Teleconferences**
- **Editorial-style review**
- **Video-enhanced discussions**
- **Asynchronous electronic discussions**

Remember today's session on Enhancing Peer Review!



The NIH Peer Review Process

eRA Commons <http://era.nih.gov/commons/index.cfm>

- **Final Impact/Priority Score available three days after conclusion of SRG meeting**
- **Summary statement available 4 – 8 weeks after meeting**
 - Available to Program Officers at that time
 - Confidential document
- **Available to**
 - PD/PIs
 - NIH officials
 - Advisory Council members

<http://>



Summary Statement

First page

- **Program Officer (upper left corner)**
 - Name
 - Contact information
- **Final Impact/Priority Score or ND**
- **Percentile (if applicable)**
- **Codes**
 - Human subjects
 - Vertebrate animals
 - Inclusion plans
- **Budget request**





Summary Statement - continued

Subsequent Pages

- **Description (provided by applicant)**
- **Resumé and Summary of Discussion (if discussed)**
- **Reviewer critiques – essentially unedited**
 - **Follow review criteria for mechanism**
 - **Now formatted in bullet points**
 - **Protections for Human Subjects**
 - **Inclusion Plans**
 - **Vertebrate Animals**
 - **Biohazards**
 - **Budget**
- **Administrative Notes**





The NIH Peer Review Process

After the Review

- **Program Officer = Point of Contact**
- **Wait for summary statement**
- **Read summary statement carefully before calling!**

A favorable score does not guarantee funding!





The NIH Peer Review Process

Appeals Process

Consider options if outcome is unfavorable

- **Revise and resubmit application**
 - **Consider critiques in summary statement**
 - **Address critiques in introduction and text**
- **Appeal review outcome**
 - **Procedural deficiencies**
 - **Factual errors**
 - **May result in re-review of same application by different SRG**



Discuss with your Program Officer first!



The NIH Peer Review Process

Advisory Council/Board

Second level of review

Advisory to NIH or IC Director



- **Rosters:** <http://www1.od.nih.gov/cmo/committee/index.html>
- **Schedule:** <http://www1.od.nih.gov/cmo/committee/index.html>



The NIH Peer Review Process

Advisory Council/Board

Make recommendations to IC Director:

- **Research priority areas**
- **Policy**
- **Appeals**
- **Funding**
- **Quality of SRG review**
 - **Concur with SRG recommendations**
 - **Modify SRG recommendations**
 - **Deferral for re-review**
 - **Cannot change final impact/ priority score from SRG**





The NIH Peer Review Process

Advisory Council/Board

- **Scientists from the extramural research community**
- **Public representatives**
- **Appointed to terms**
- **Appointed as Special Government Employees**
- **Expertise**
- **Stature in field**
- **Mature judgment**
- **Impartiality**
- **Managed conflicts of interest**
- **Balanced representation**
 - **Gender**
 - **Geography**
 - **Diversity**
 - **Seniority**





The NIH Peer Review Process

Funding Considerations

- **Scientific and technical merit (initial peer review)**
- **Council recommendation**
- **Relevance to program priorities in IC**
- **Number of meritorious applications received**
- **Availability of funds**





The NIH Peer Review Process

Additional Information

- **Enhancing Peer Review Initiative**
<http://enhancing-peer-review.nih.gov/>
- **Office of Extramural Research Peer Review Process**
http://grants.nih.gov/grants/peer_review_process.htm
- **Peer Review Policies & Practices**
<http://grants.nih.gov/grants/peer/peer.htm>
- **Center for Scientific Review**
<http://cms.csr.nih.gov/AboutCSR/Welcome+to+CSR/>





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