

1st Annual NIAID New Investigator Workshop

Overview of NIH Peer Review within CSR

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center for
scientific review

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**National Institutes of Health
U.S. Department of Health and Human Services**





First Level of Review

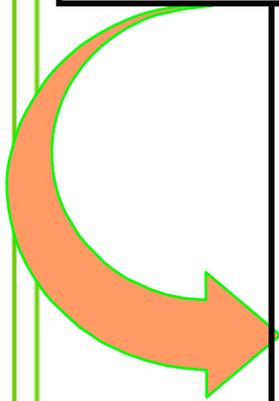
Scientific Review Group (SRG)

- **Scientific Merit**
- **Budget and Duration**

Second Level of Review

Council

- **Quality of SRG Review**
- **Recommendation to
Institute Staff on Funding**
- **Evaluate Program Priorities/Relevance**
- **Policy Considerations**





Overall Timeframe from Submission to Award

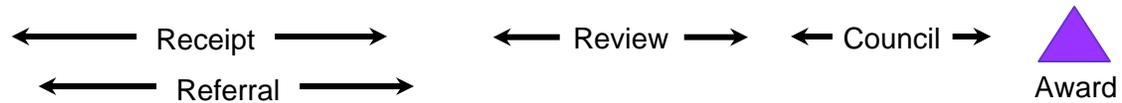
There are three overlapping cycles per year

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
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Cycle 1



Cycle 2



Cycle 3





What Determines Which Awards Are Made?

- **Scientific merit**
- **Program considerations**
- **Availability of funds**





Center for Scientific Review

Referral

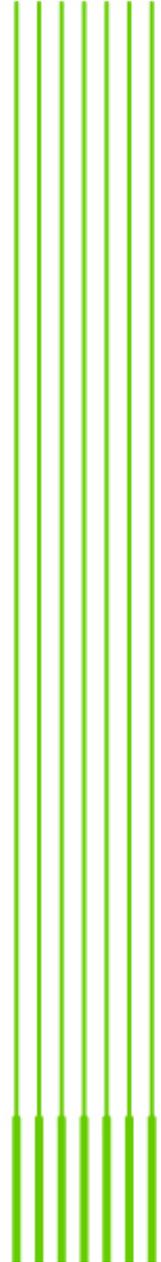
- **Central Receipt Point for most PHS Grant Applications**
- **Institute Assignment (Potential Funding Component)**
- **Assignment to Scientific Review Group in CSR or in an Institute**

Scientific Review

- **More than 200 chartered study sections and regularly recurring special emphasis panels that review:**
 - **Research Grant Applications**
 - **Postdoctoral Fellowship Application**
 - **Academic Research Enhancement Award Applications**
 - **Small Business Innovation Research Applications**



Grant Application Receipt and Assignment







Where To Go For Help

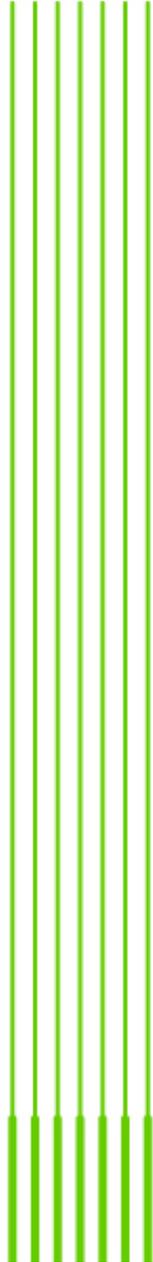
- General information on Electronic Submission and the SF424 (R&R)
 - <http://era.nih.gov/ElectronicReceipt>
- Grants.gov registration, submission and Pure Edge behavior questions
 - Visit <http://www.grants.gov/CustomerSupport>
 - Grants.gov Customer Service
 - E-mail: support@grants.gov--Phone: 1-800-518-4726
- eRA Commons registration and post submission questions on Commons functionality
 - Support Page: <http://era.nih.gov/commons/index.cfm>
 - eRA Commons Help Desk
 - E-mail: commons@od.nih.gov--Phone: 1-866-504-9552 or 301-402-7469
- Forms transition and questions on NIH's electronic receipt plan
 - NIH Grants Information
 - E-mail: grantsinfo@nih.gov--Phone: 301-435-0714



Applications Are Assigned by--

Referral Officers:

Professional scientists, most of whom also serve as scientific review administrators of CSR study sections





Applications Are Assigned to:

- **Scientific review groups based on--**
 - **Specific review guidelines for each scientific review group**
- **Institutes or Centers based on--**
 - **Overall mission of the Institute or Center**
 - **Specific programmatic mandates and interests of the Institute or Center**

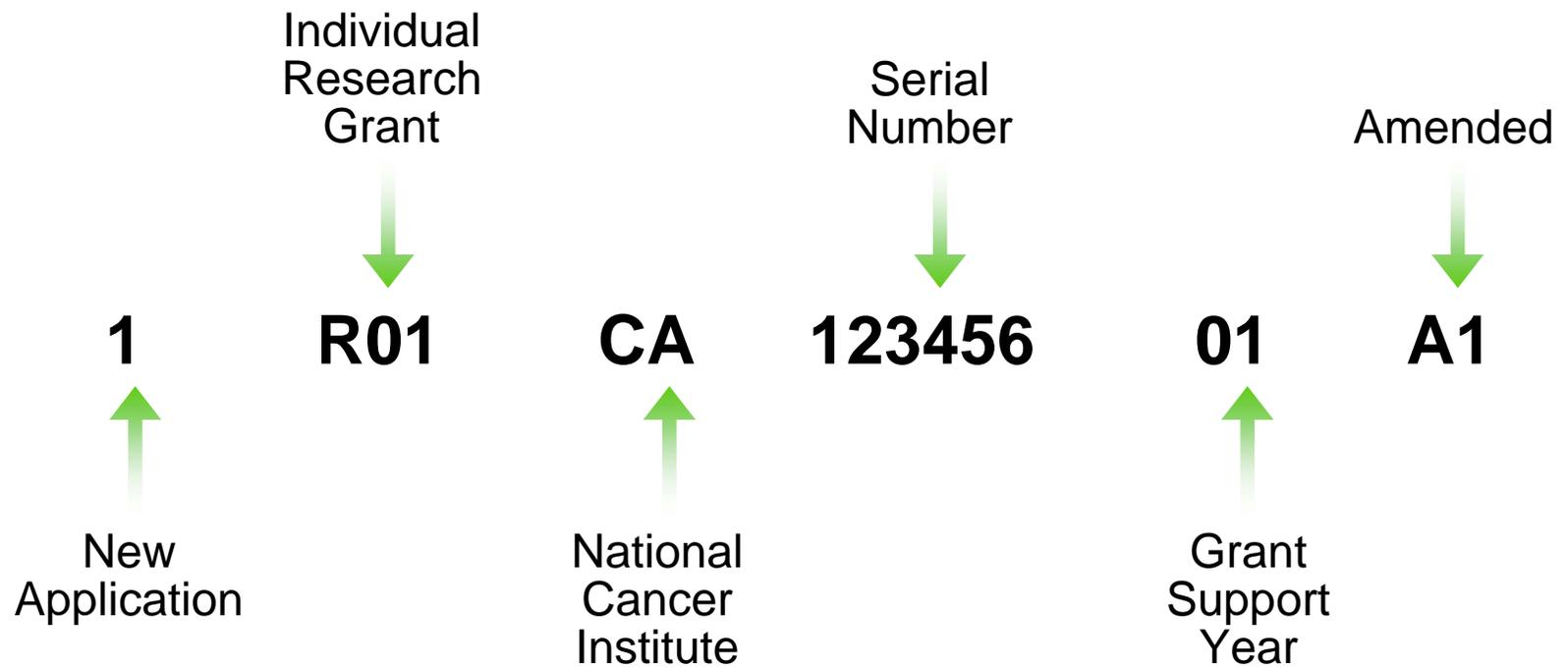


IRG and Study Section Referral

- **Integrated Review Groups (IRGs) are a cluster of scientifically-related study sections**
- **20 IRGs with 4-18 study sections/IRG**
- **Referral guidelines: IRGs & study sections**
- **CSR's Receipt and Referral Office**
- **IRG Chief (and/or Deputy IRG Chief)**
- **Principal Investigator input**
 - **Cover letter and post assignment contact**



Sample Application Number





Initial Review in CSR



CSR Study Sections



Study Section Actions:

- Score
- Unscore
- Deferral

- Each CSR standing study section has 12-24 members who are primarily from academia
- CSR standing study sections convene face-to-face meetings
- As many as 60-100 applications are reviewed by each study section



Scientific Review Administrator

Designated Federal official with overall responsibility for the review process

- **Performs administrative and technical review of applications to ensure completeness and accuracy**
- **Selects reviewers based on broad input**
- **Manages study sections**
- **Prepares summary statements**
- **Provides requested information about study section recommendations to Institutes/Centers and National Advisory Councils/Boards**

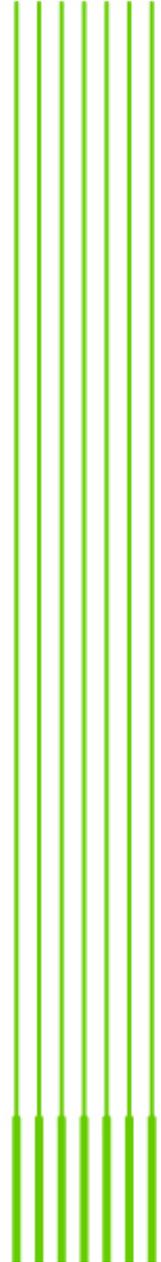


Criteria For Selection of Peer Reviewers

- **Demonstrated Scientific Expertise**
- **Doctoral Degree or Equivalent**
- **Mature Judgment**
- **Work Effectively in a Group Context**
- **Breadth of Perspective**
- **Impartiality**
- **Interest in Serving**
- **Adequate Representation of Women and Minority Scientists**



Study Section Meeting







Review Criteria

- **Significance:** Does the study address an important problem? How will scientific knowledge be advanced?
- **Approach:** Are design and methods well-developed and appropriate? Are problem areas addressed?
- **Innovation:** Are there novel concepts or approaches? Are the aims original and innovative?
- **Investigator:** Is the investigator appropriately trained?
- **Environment:** Does the scientific environment contribute to the probability of success? Are there unique features of the scientific environment?



Priority Scores/Percentile Rank



- For each study section, applications in the upper half generally are scored from 1.0-3.0, with 1.0 the best score. Scores as low as 5.0 are possible.
- Individual scores are averaged and multiplied by 100 to give the final priority score



Inside the NIH Grant Review Process Video



- **CSR has developed a video of a mock study section meeting to show how NIH grant applications are reviewed.**

<http://www.csr.nih.gov/video/video.asp>



Summary Statement

Once applications are reviewed, the results are documented by the SRA in a summary statement and forwarded to the Institute or Center (and the PI) where a funding decision is made.

The summary statement contains:

- **Overall Resume and Summary of Review Discussion**
- **Essentially Unedited Critiques**
- **Priority Score and Percentile Ranking**
- **Budget Recommendations**
- **Administrative Notes**



Preparation of an Application





When Preparing an Application

- Read instructions
- Never assume that reviewers “will know what you mean”
- Refer to literature thoroughly
- State rationale of proposed investigation
- Include well-designed tables and figures
- Present an organized, lucid write-up
- Obtain pre-review from faculty at your institution

NIH Grant Writing Tips:

http://grants.nih.gov/grants/grant_tips.htm



Common Problems in Applications

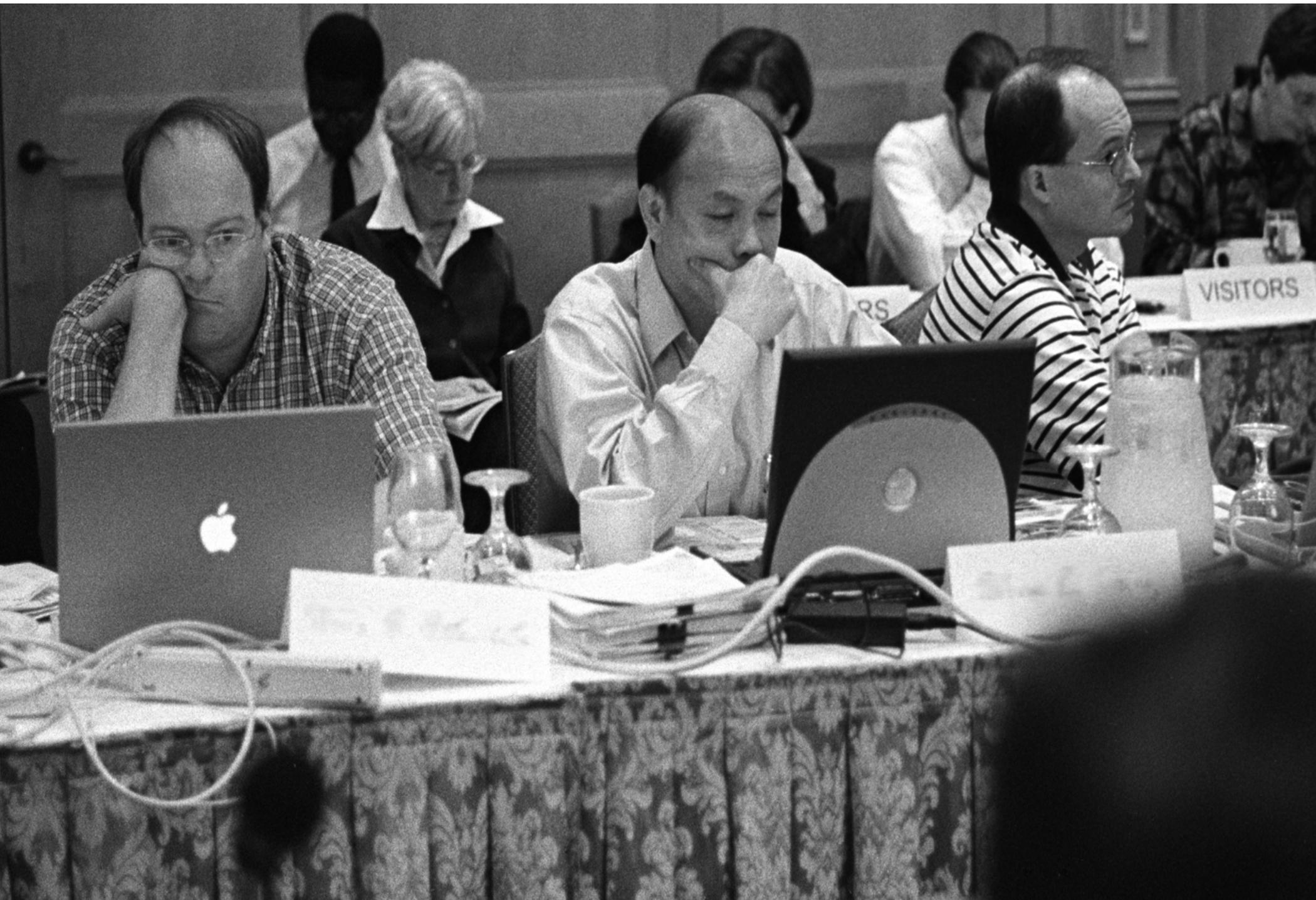
- **Lack of new or original ideas**
- **Absence of an acceptable scientific rationale**
- **Lack of experience in the essential methodology**
- **Questionable reasoning in experimental approach**
- **Uncritical approach**
- **Diffuse, superficial, or unfocused research plan**
- **Lack of sufficient experimental detail**
- **Lack of knowledge of published relevant work**
- **Unrealistically large amount of work**
- **Uncertainty concerning future directions**



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 Rosters
(<http://www.csr.nih.gov/committees/rosterindex.asp>)
 - Review Group Meeting Dates
(<http://www.csr.nih.gov/Committees/meetings/ssmeet1.asp>)









After getting a non-fundable score:

First go into mourning by being angry, depressed, frustrated or some combination thereof.

Then think carefully about what the reviews say:

- 1. Directly address these points in a cordial and professional way in the revised application , and resubmit.**

Or

- 2. Recognize the program is unlikely to ever support the application no matter how extensively revised and that you need to change strategies.**