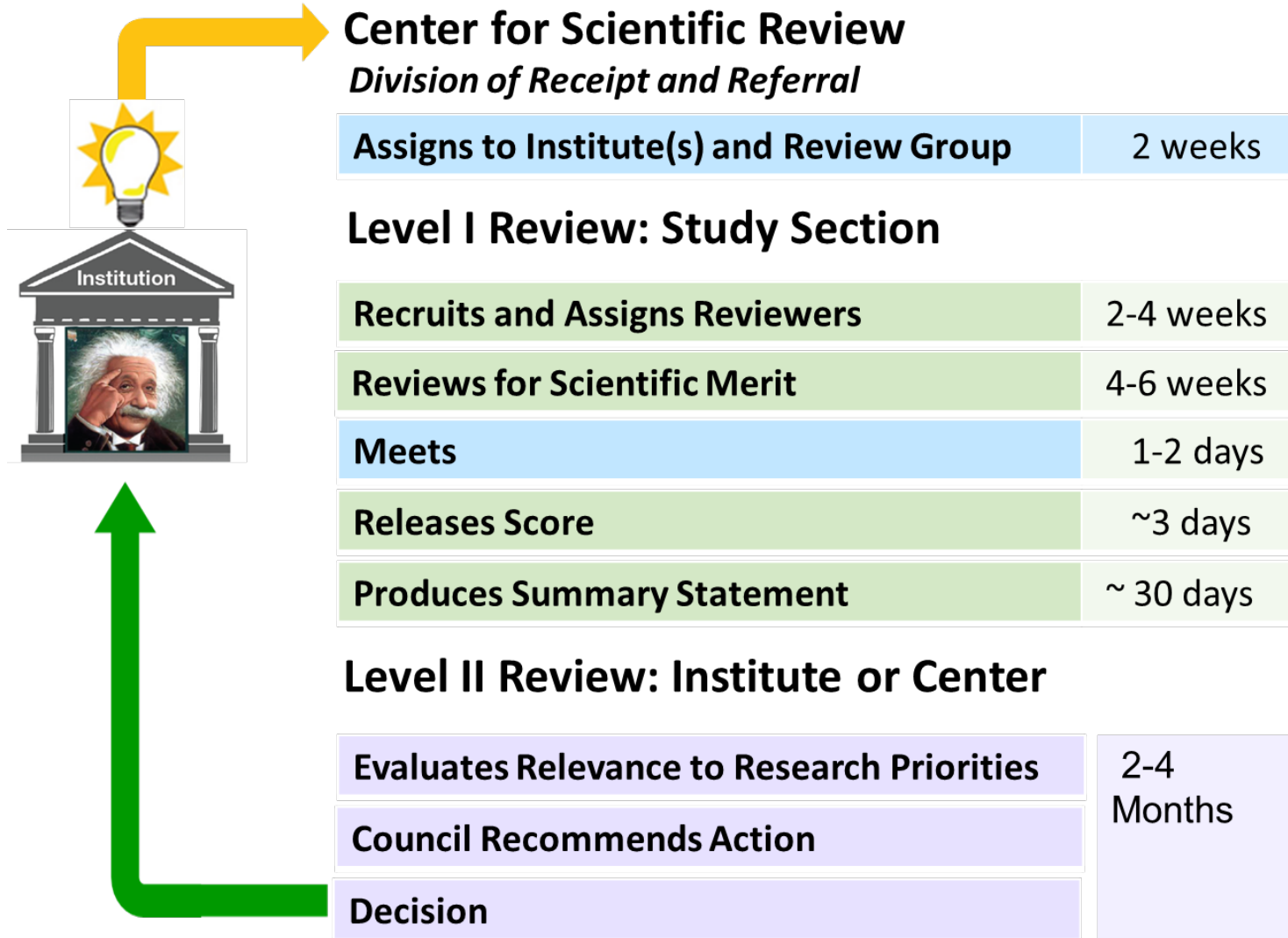# Peer Review at NIH

Amy Rubinstein, PhD
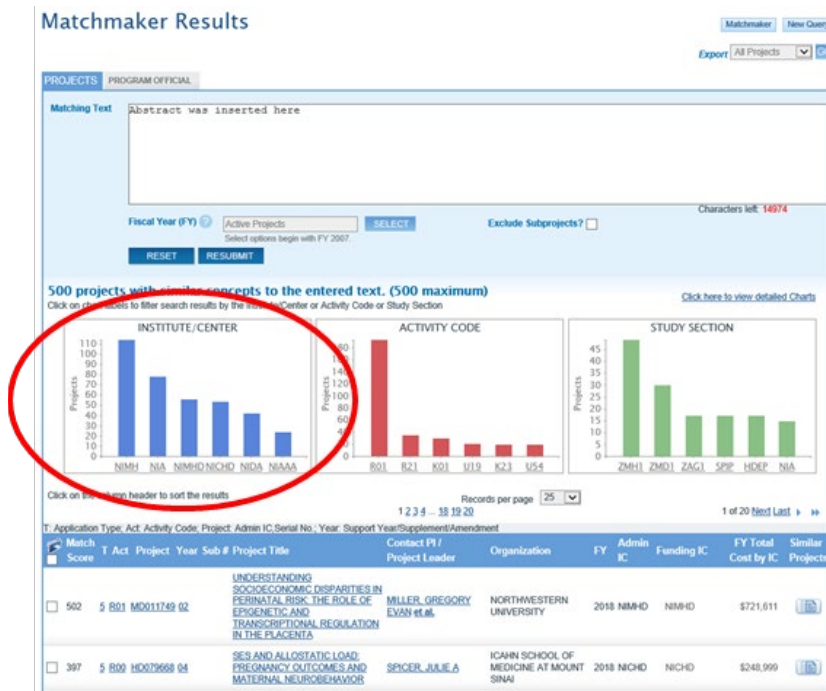
Chief, Basic and Translational Cancer (BTC)

Review Branch

# 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

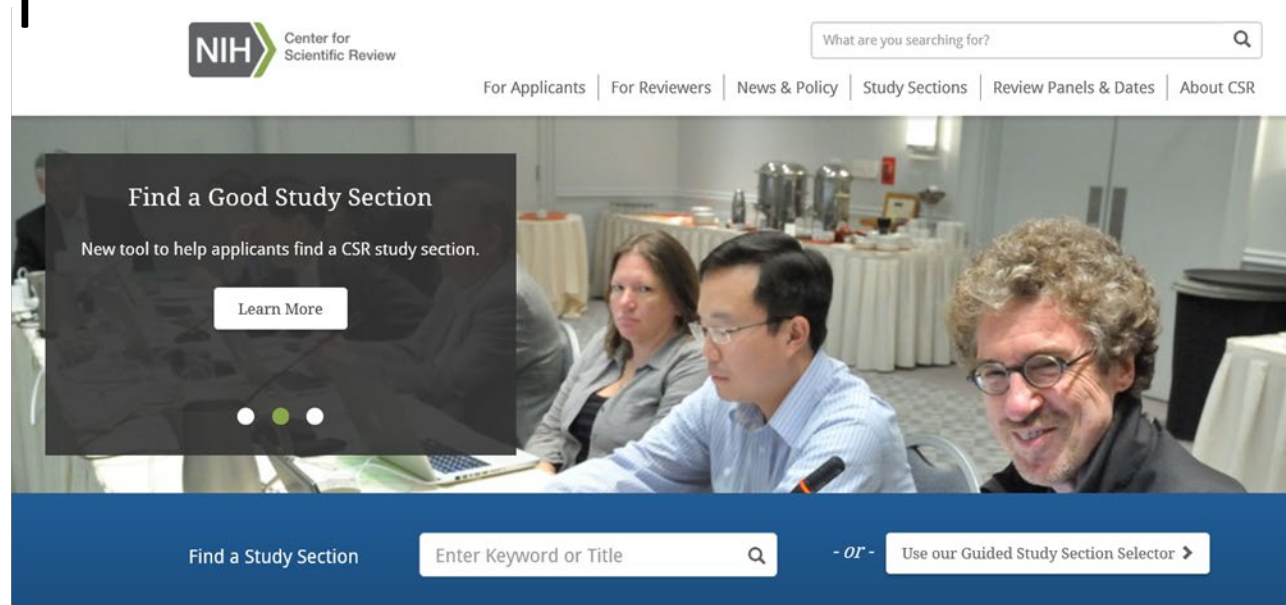| | |
|---|---|
| **Evaluates Relevance to Research Priorities** | 2-4 Months |
| **Council Recommends Action** | |
| **Decision** | |

Institution

# 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



Key Word **Search**

Assisted Referral Tool **Search**

**http://www.csr.nih.gov**

# Assignment Request Form (ARF)

The ARF replaces many functions of the cover letter.

Use it to:

- Make assignment suggestions (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 a Review Branch, 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** | All | 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

| Overall Impact | High | Medium | Low |
|---|---|---|---|
| **Score** | 1 2 3 | 4 5 6 | 7 8 9 |

**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 <u>high</u> importance/interest in the field. May have some or no technical weaknesses.

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

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

7-9 Applications may be addressing a problem of <u>moderate/high</u> 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 A0 or A1 application that overlaps a funded application

- Simultaneous submissions of overlapping applications

- An A0 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 A0 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