U.S. Department of Health & Human Services

NIH Center for
Scientific Review

2020 CSR Incoming Chair Orientation
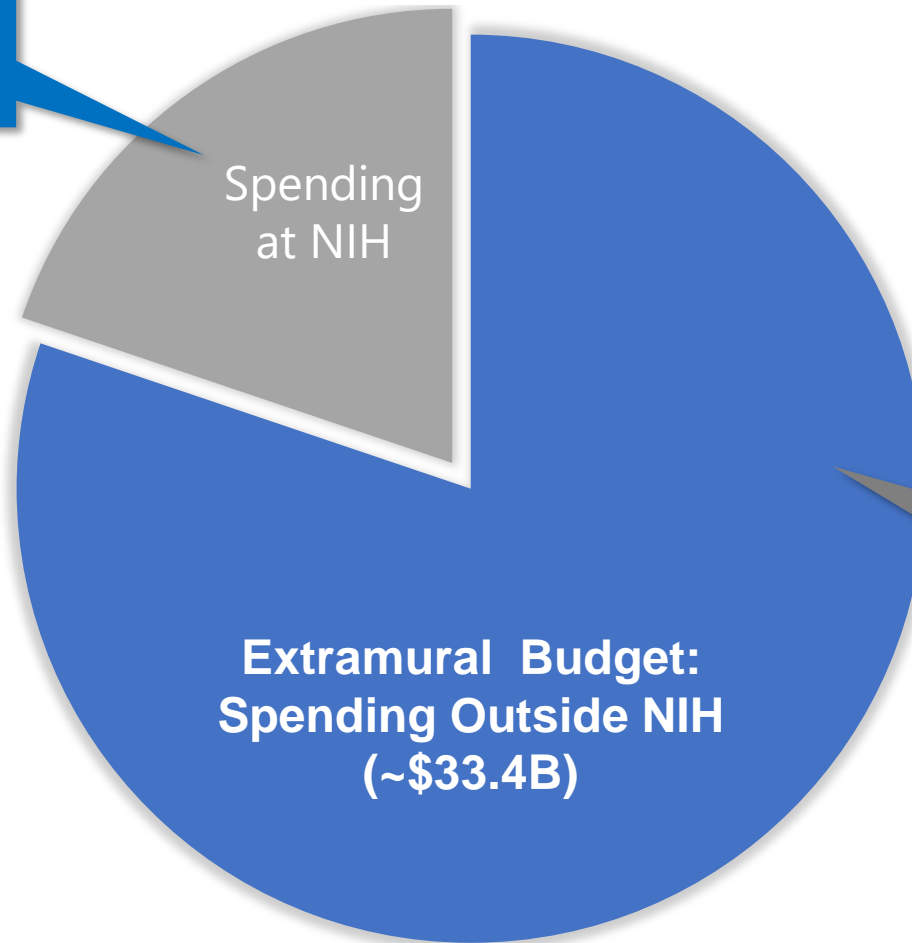*Brief Overview - Key Issues In Peer Review*

Noni Byrnes, Ph.D.
Director, Center for Scientific Review

The Critical Importance of Peer Review – The Main Driver of NIH Extramural Funding
FY 2020 NIH Budget: $41.6 Billion

- Intramural Research
- Research Management & Support and Other

Spending at NIH

Extramural Budget:
Spending Outside NIH
(~$33.4B)

- Supports over 300,000 Scientists & Research Personnel
- Supports over 2,500 Institutions

CSR Mission

To ensure that NIH grant applications receive fair, independent, expert, and timely reviews - free from inappropriate influences - so NIH can fund the most promising research.

You and the NIH: Integrity in the Peer Review Process

To ensure that NIH grant applications receive fair, independent, expert, and timely reviews - **free from inappropriate influences** - so NIH can fund the most promising research.

Integrity of the Peer Review Process
Critically important for all of us

- Maintaining the public trust in the NIH's stewardship of taxpayer dollars to support U.S. biomedical science research

- Confidentiality is critical for candor in discussion and evaluation, and thus impacts the very basis of the peer review process

- Will take the support of the entire research community – investigators, reviewers, chairs, NIH staff, institutional officials

- NIH is taking this issue <u>very</u> seriously– not widespread problem, but increased reporting/action – culture change

Center for Scientific Review

Integrity of the Peer Review Process
What is the NIH Doing? More reporting/action

ACTIONS

- Following up on every allegation

Actions have included

- Deferral of application

- Withdrawal of application

- Removal from serving on peer review committees

- Notifying the institution of the PI or reviewer which has led to personnel actions

- Pursuing government-wide suspension and disbarment, or referral to other agencies for criminal violations

PRO-ACTIVE MEASURES

- Review Integrity Officer

- Enhanced Reporting – SRO signature

- Enhanced SRO Awareness and Training

- Tighter IT controls

- Outreach to scientific community – culture change

- **Reviewer/Chair Awareness and Training - Online Module with Case Studies –** *piloted with 70+ study sections in the last 2 rounds, to all next round*

Integrity of the Peer Review Process
What Can You Do As Chair?

- Absolute confidentiality of the meeting materials and proceedings – scores, discussions, application content, critiques

- No ex parte hallway or dinner discussions (in Zoom: without the entire panel assembled and the SRO present) – model good behavior yourself, call it out when you see it, change the culture, tell the SRO.

- Be prudent about accepting seminar invitations from applicants while their application is under review

- Err on the side of caution – report any potential violations to your SRO, or the CSR Review Integrity Officer csrrio@mail.nih.gov or the NIH Review Policy Officer at reviewpolicyofficer@mail.nih.gov

You and the NIH: **Fairness** in the Peer Review Process

To ensure that NIH grant applications receive **fair,** independent, expert, and timely reviews - free from inappropriate influences - so NIH can fund the most promising research.

Fairness of the Peer Review Process
What Can You Do As Chair?

- Recognize your influence – in setting and changing the study section culture

- Actively foster a positive study section culture - confidentiality, integrity, encouraging broader participation/inclusion across the committee, call out statements that bias the scientific assessment (institution, career-stage, field, race/gender)

- Promote a focus on significance (ask the question), and consistency in scoring – score/word match, aligned to score guidance.

Fairness of the Peer Review Process - Getting at Significance
If successful (if everything works)…..

- No one wants to call the baby ugly

- Easier to pick on methodological weaknesses – unfair to the applicant

- Encourage thoughtful scientific discourse of potentially significant versus incremental advance – ask the question

- Call out score justifications based on counts or descriptors of weaknesses ("1 major and 2 minor weaknesses") – orient back to the score chart – a potentially incremental advance with NO weaknesses in the approach cannot score in the 1-3 range.

NIH Center for Scientific Review

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

e.g. Applications are addressing a problem of <u>high</u> importance/interest in the field. May have some or no technical weaknesses.

e.g. 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.

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

e.g. Applications may be addressing a problem of <u>moderate</u>/<u>high</u> importance in the field, but weaknesses in the criteria bring down the overall impact to low.

e.g. 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, and the entire scale (1-9) should always be considered.

This Is CSR

Q/A, Discussion
CSRdirector@csr.nih.gov