### Center for Scientific Review Advisory Council Meeting National Institutes of Health U.S. Department of Health and Human Services

### Meeting Minutes March 27, 2023

The Center for Scientific Review Advisory Council (CSRAC) convened at 9:00 a.m., Monday, March 27, 2023.

Members Present	Ad-Ho
Karen Anderson, M.D., Ph.D.	Jonath
Leopoldo J. Cabassa, MSW, Ph.D.	Donna
Matthew Carpenter, Ph.D.	
Christine P. Hendon, Ph.D.	Execut
Michelle C. Janelsins-Benton, Ph.D.	Bruce
Narasimhan Rajaram, Ph.D.	
Elizabeth Villa, Ph.D.	Ex Offi
Lynn Yee, M.D., M.P.H.	Noni B

#### Ad-Hoc Participants Jonathan Epstein, M.D.

Donna Ginther, Ph.D.

# Executive Secretary

Bruce Reed, Ph.D.

#### E**x Officio** Noni Byrnes, Ph.D.

#### CSR/NIH/HHS Employees and Members of the Public Present

The meeting was held in-person; one council member attended via Zoom and one council member was absent. A small number of observers attended in person. All other observers, members of the public and CSR staff, attended virtually via NIH videocast.

#### Welcome and Introductions

Dr. Reed welcomed CSRAC members, ad-hoc participants, and attendees to the 25<sup>th</sup> CSRAC meeting. Each person introduced themselves along with their institutional affiliations and respective areas of science.

#### **CSR Updates**

Dr. Byrnes provided the following CSR updates:

#### Welcome (NIH Videocast: 00:05:15)

Dr. Byrnes thanked all members for attendance and welcomed new members Karen Anderson and Lynn Yee, as well as ad hoc members Jonathan Epstein and Donna Ginther.

#### Scientific Leadership/Management Transitions (NIH Videocast: 00:06:28)

CSR welcomes three new branch chiefs (Aruna Behera, Raul Rojas, and Roy Wheat), and one division director for the Division of Receipt and Referral (Duane Price).

# Overview: Mission, Strategic Framework & Scope (NIH Videocast: 00:07:46)

Dr. Byrnes reviewed the mission and scope of CSR which engages approximately 19,000 reviewers across ~1,200 meetings. She reminded Council of CSR's strategic framework which seeks to optimize peer review by focusing on key components of peer review—reviewers, study sections, and review processes. The work of CSR staff is critical to every part of the process. Dr. Byrnes reviewed CSR's operating principles of transparent, data-driven decision-making and operations, involvement/engagement of stakeholders, open, multi-directional and respectful communications as well as staff engagement, training, and development.

ENQUIRE Update (NIH Videocast: 00:12:10)

This is a two-stage, systematic, data-driven, and continuous process to evaluate study sections. The process is overseen by CSR's scientific division directors. The process includes 3 stages: an external scientific evaluation panel, internal NIH process evaluation panel, and CSR Advisory Council approval. Following CSRAC approval, CSR staff further evaluate feasibility of the recommendations with mock sorts, finalize study section guidelines, publish, and implement the changes. ENQUIRE takes about 12-18 months from initiation to implementation – 13 scientific clusters (152 study sections) have been completed or are in progress. CSR has found that ENQUIRE, in general, results in substantive changes in study sections by elimination/merging of smaller, boutique panels, refreshing scientific guidelines, establishing new study section and incorporation of growing/emerging scientific areas. CSR will conduct ENQUIRE evaluations, examining referral patterns, rosters, and targeted concerns, along with other measures of impact. The evaluation efforts will include a combination of community feedback via surveys administered to the internal and external community and objective analyses.

### Simplifying Review: Research Project Grants (NIH Videocast: 00:18:57)

The goal of this effort, which was led by a CSRAC working group, is to facilitate the mission of scientific peer review by identifying the strongest, potentially highest-impact research. The main approaches to accomplish this were to reduce the distractions from administrative questions (allowing reviewers to focus on science) and to mitigate reputational bias in the peer review process. The Request for Information (RFI) resulted in more than 800 comments (~780 individuals, 30 scientific societies, 23 academic institutions) – most comments were supportive and most recommended the development of strong training resources to socialize the changes. CSR anticipates having a full report by end of April. A trans-NIH Executive Committee is working hard to implement the simplified review framework.

Some respondents to the RFI urged CSR to implement blinded review. Dr. Byrnes explained that legally, NIH can only partially blind review. She pointed out the multiple challenges of implementing partially blinded review on at the scale and across the broad range of science required of NIH review. Examples of blinded review cited by respondents have occurred on a far smaller scale, and generally with respect to targeted initiatives. CSR continues to pilot such an effort in the partially-blinded review of the NIH Director's Transformative Awards.

# Update on Simplifying Review: NRSA Fellowships (<u>NIH Videocast: 00:37:59</u>)

The goal of this effort is to facilitate the mission of scientific peer review by identifying highly promising research scientists of the future. The approach to doing this is to restructure the review criteria and to modify the fellowship application for alignment with the proposed review criteria. Advisory Council approved recommendations in September 2022, publication of the final CSRAC Fellowship Working Group report occurred in October 2022, recommendations were endorsed by ICs and NIH leadership in November 2022 and recommendations were presented to the Advisory Committee to the NIH Director in December 2022. NIH will release an RFI in April to get public input on the NSRA peer review proposal.

# Mitigating Bias & Diversifying Panels (<u>NIH Videocast: 00:42:13</u>)

Dr. Byrnes outlined CSR's multi-pronged approach to shifting review culture in order to reduce bias. Components include training for scientific review officers (SRO), bias mitigation training for reviewers, tools to enhance SROs' ability to find a broader range of reviewers and making it easier to report bias. For the past 2 years, CSR has had a direct reporting inbox for bias for applicants, reviewers and programs staff which reaches the CSR Chief Diversity Officer Dr. Gabriel Fosu (G.Fosu AssocDir@csr.nih.gov). CSR has added language on every outgoing staff email about how to report concerns. Every allegation that is received is taken seriously– if CSR agrees that a biased/flawed review occurred then CSR rereviews the application in the same council round so as not to disadvantage the applicant. If CSR does not agree, then CSR directs the individuals to the official NIH appeals process which is available to all investigators. CSR division directors follow-up with reviewers about actions, as necessary to foster a culture change in the review community. The majority of CSR's decisions to re-review an application due to an unfair/biased review result from SRO diligence.

Data on the demographics of CSR's reviewer pool indicates that inclusion of women and underrepresented minorities has increased on CSR panels, both for standing members and SEP reviewers.

#### Review Meeting Format (Virtual, Hybrid, In-person) (NIH Videocast: 00:55:24)

As planned, in-person study section meetings began in Fall 2022. CSR held 76 in-person review meetings in Oct/Nov 2022, and 57 in Feb/March 2023, along with one hybrid meeting. CSR plans to conduct ~10-15 hybrid meetings in June/July 2023 in CSR space. Overall, the anecdotal response for in-person meetings has been extremely positive. CSR has completed a preliminary analysis of in-person versus virtual study sections for October/November 2022 meetings – analyses included meeting format preference, impressions of quality of review and reviewer personal participation level along with objective data (diversity, rank, experience level of ad hoc reviewers and score distributions). A full report will be published by the end of April on CSR's website. CSR will continue to hold one in-person meeting per year, expand hybrid capabilities and gather data to assess broader trends/sustainability in recruitment, diversity, scoring, and reviewer experience/preference.

# Upcoming activities/new initiatives (<u>NIH Videocast: 01:05:23</u>)

CSR has formed an internal committee to develop high-level measures to conduct system-wide evaluations of reviewer performance. Next steps for this internal committee will include bringing the ideas to council and forming a council working group. Another initiative that CSR is exploring is reviewer recognition and how to ensure that reviewers are recognized by their institutions.

### Peer Review and the Mission of NIH (Dr. Larry Tabak) (<u>NIH Videocast: 01:18:32</u>)

Dr. Tabak reviewed the history of CSR from its conception as the Division of Research Grants in 1946 to the Center for Scientific Review in 1997 and how it establishes a strong and flexible foundation for peer review. CSR is leading efforts to strengthen peer review through numerous activities (ENQUIRE evaluations, simplifying review framework, changes to NRSA fellowship review, diversifying panels, actions to reduce bias in review and actions to prevent and addresses breaches of review integrity). Regarding the NIH budget, for FY 2023, there was a general increase of 3.8% to NIH institutes/centers. It was noted that NIH funds scientists across the U.S. and numerous high-profile NIH initiatives are reviewed by CSR. Dr. Tabak briefly reviewed scientific progress resulting from special NIH initiatives (such as BRAIN, HEAL) and high-risk, high-reward initiatives that NIH undertakes. He also provided a UNITE progress report. The UNITE program describes NIH's actions to identify and address structural racism that may exist within NIH and in the biomedical and behavioral research enterprise by focusing on elevating health disparities and minority health research, promoting equity in the internal NIH workforce, and promoting equity in the external research workforce. Dr. Tabak also reviewed the NIH DEIA Strategic Plan Framework.

# ENQUIRE: Cluster 3 (Dr. Olufokunbi-Sam) (<u>NIH Videocast: 02:03:41</u>)

Dr. Olufokunbi-Sam gave an overview of the ENQUIRE cluster 3 process and recommendations. ENQUIRE cluster 3 is a group of 10 standing study sections and 3 recurring special emphasis panels generally covering clinical and translational neurological and psychiatric disorders research along with neurotechnology. Recommendations from the external panel of scientific experts were presented, as well as input on these recommendations provided by an internal panel of NIH stakeholders. Recommendations were to charter 15 new study sections – 5 study sections were refreshed, 9 substantially new study sections were formed, a new neuro-oncology study section was created, and data science, imaging, and environmental risk factors were integrated across most study sections. After discussion, a motion to endorse the study section reorganization resulting from the ENQUIRE assessment was unanimously carried by Council.

# Reflections on Race, Ethnicity & NIH Research Awards (Dr. Ginther) (<u>NIH Videocast: 02:34:55</u>)

Dr. Ginther provided an overview of a body of research bearing on issues of equity in scientific funding. She started by reviewing her 2011 paper that revealed a significant difference in R01 award probability for PhD scientists by race and

ethnicity. Multiple later studies replicated and extended this work. For example, Ginther, Kahn & Schaffer (2016) found no evidence of a double bind (e.g., disadvantaging effects of both race and gender) for women of color. She then discussed their 2018 paper that carefully examined factors that might explain the award gap at NIH; the data indicate that publication and citation patterns explain much of the Black/white R01 funding gap. A closer look also provides useful information about where careers diverge, supporting an explanatory model of cumulative advantage/disadvantage in careers. Research from other groups has reported little evidence of racial bias per se in NIH review, although one study did find evidence of a positive (reputational) halo effect that advantaged white applicants in review. In discussion, Dr. Ginther cited work that showed a very positive, long-lasting effect of a mentoring intervention on careers of women. She concluded with new data from the NIH indicating a narrowing of the funding gap.

### Strengthening Peer Review through Training (Dr. Mintzer) (NIH Videocast: 03:21:51)

Dr. Mintzer provided an overview of CSR's integrated and comprehensive approach to training staff and reviewers. CSR is highly committed to training and in 2022 established the Office of Training and Development housed in the Office of the Director. The office's focus in on strengthening peer review through training; the office focuses on both *how* to train and *what* to train. The office has 5 components, each led by an SRO coordinator—Reviewer Training, New SRO Training, Continuing SRO Training, Review Policy and Practices, and Review Information Systems. It provides training to ~19,000 reviewers per year through centralized online modules on high priority topics (e.g., mitigating bias, and review integrity modules) and through tailored, SRO-led training. SRO training is tailored to different development stages (new SRO vs. continuing education). SRO training is creatively integrating didactic and experiential learning, and there are plans to develop a wider variety of tools. A focus area on training for support staff is a new addition to the office and will be developed and integrated with other components over the next several months.

The meeting adjourned at 3:06 p.m.

We hereby certify that, to the best of our knowledge, the foregoing minutes of the March 27, 2023, CSRAC meeting are accurate and complete.

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

Bruce Reed, Ph.D. Executive Secretary Center for Scientific Review Advisory Council