

March 23, 2022

Dr. Noni Byrnes  
National Institute of Health  
Center for Scientific Review  
6701 Rockledge Dr.  
Bethesda, MD 20892

## **RE: Comments for Center for Scientific Review 2022-2027 Strategic Plan**

The American Society for Biochemistry and Molecular Biology (ASBMB) is an international nonprofit scientific and educational organization that represents more than 12,000 students, researchers, educators and industry professionals. The ASBMB strongly advocates for strengthening the science, technology, engineering and mathematics (STEM) workforce, supporting sustainable funding for the American research enterprise, and ensuring diversity, equity and inclusion in STEM.

The ASBMB supports the National Institute of Health's Center for Scientific Review's (CSR) overall plan to evaluate its scientific scope, manage its review committees, diversify its staff, enhance training and development of all staff, and strengthen the peer-review process. Improving communication and engagement with the scientific community is vital to transparency and equity in peer review.

The ASBMB commends CSR's work on developing an implicit bias training module and its commitment to training the next generation of scientists in peer review. However, CSR must commit to transparency by posting requests for information through traditional outlets as well as through social media to garner ample and diverse stakeholder feedback. This request for comments was posted through CSR's [Review Matters blog](#) and on the CSR twitter account with only thirty-eight days to draft a response. The ASBMB strongly suggests that CSR post requests for comments through traditional outlets such as NIH Guide Notices as well as through CSR's blog and social media avenues with the traditional sixty to ninety day deadline. Using multiple outlets for dissemination ensures that as many stakeholders as possible are reached and diverse opinions are considered.

In addition, the ASBMB has three recommendations to improve the overall plan: (1) include diverse communities and organizations as stakeholders; (2) make certain that staff and peer reviewers are properly trained; and (3) collaborate with chairs of internal diversity initiatives to combat biases when using artificial intelligence/machine learning in peer review.

### **Integrate diverse communities and organizations as stakeholders**

We applaud CSR's establishment of the [Early Career Reviewer Program](#). This program has the promise to demystify the peer-review process and strengthens early-career investigators' grant writing skills. Additionally, we support continuing the [Evaluating Panel Quality in Review \(ENQUIRE\) program](#) to ensure that scientific review panels continue to address new challenges in scientific research. The ASBMB recommends that CSR host regular listening sessions and produce regular requests for information regarding CSR changes to make sure diverse stakeholder feedback is included.

We ask that CSR include on review panels experts from all institution types, including those in [Institutional Development Award](#)-eligible states and those at minority-serving institutions, such as historically Black colleges and universities, tribal colleges and universities, Asian American Native American Pacific Islander-serving institutions and Hispanic-serving institutions. We recommended targeted outreach to organizations such as [Asian and Pacific Islander American Scholars](#), [American Indian Science and Engineering Society](#), and [The Society for Advancement of Chicanos/Hispanics and Native Americans in Science](#).

### **Ensure CSR staff and reviewers are properly trained**

The ASBMB recommends that CSR's efforts to train staff and peer reviewers be transparent and provide evidence of growth. It is important for staff and peer reviewers to be well trained not only in peer review but also in implicit bias. Although we support the establishment of an Office of Training and Development to ensure that reviewers are properly trained, CSR must create a training plan that takes into consideration stakeholder feedback. We recommend that CSR connect with the scientific community and be transparent in developing the new office and its programs and curriculum by issuing requests for information.

We also recommend that CSR continue to partner with [UNITE](#) on implicit bias awareness modules. Furthermore, CSR should also consult UNITE and consultants outside of NIH about diversifying staff and in review panels.

### **Combat learning biases when using automation technology in peer review**

The ASBMB recommends that CSR collaborate with stakeholders and chairs of technology diversity initiatives to uphold an equitable peer review process. Machine learning/artificial intelligence (AI) is a pioneering technology that has the promise to make the peer-review process more efficient by processing applications quicker. It is progressive of CSR to incorporate technology in the peer-review process.

However, historically, there has been a lack of consideration for marginalized groups in the development of machine-learning technologies, often leading to racial and gender biases. In a [recent study](#), they found that using machine learning in peer review can be biased because it relies on information from the past which means that papers that have been authored by underrepresented groups in the scientific literature might have a higher rejection rate using AI. CSR should collaborate with experts such as those at [AIM-AHEAD](#) when using artificial intelligence/machine learning in the peer-review process to make sure that the technology is not biased against scientists from historically marginalized groups.