Association of
American Medical Colleges
655 K Street, N.W., Suite 100, Washington, D.C. 20001-2399
T 202 828 0400 F 202 828 1125
www.aamc.org

March 10, 2023

National Institutes of Health
9000 Rockville Pike
Bethesda, Maryland 20892

RE: Request for Information (RFI) on Proposed Simplified Review Framework for NIH Research Project Grant Applications (NOT-OD-23-034)

Submitted electronically at https://rfi.grants.nih.gov/?s=638509b5409baa49f803e572

The Association of American Medical Colleges (AAMC) appreciates the opportunity to provide feedback to the National Institutes of Health (NIH) on the proposed simplified review framework for NIH Research Project Grant (RPG) applications (NOT-OD-23-034). Through this proposed framework, the NIH seeks to advance the mission of scientific peer review – identification of the strongest, highest-impact research – while mitigating undue biases and burden for study sections in the peer review process. These goals align with the AAMC mission and strategic plan, which seeks to foster inclusive and innovative research and discovery; attract and advance a diverse workforce; create more inclusive, equitable environments in the research community, medical schools, and teaching hospitals; and improve the health of all people.[1]

The AAMC is a nonprofit association dedicated to improving the health of people everywhere through medical education, health care, medical research, and community collaborations. Its members are all 157 U.S. medical schools accredited by the Liaison Committee on Medical Education; 13 accredited Canadian medical schools; approximately 400 teaching hospitals and health systems, including Department of Veterans Affairs medical centers; and more than 70 academic societies. Through these institutions and organizations, the AAMC leads and serves America's medical schools and teaching hospitals and the millions of individuals across academic medicine, including more than 193,000 full-time faculty members, 96,000 medical students, 153,000 resident physicians, and 60,000 graduate students and postdoctoral researchers in the biomedical sciences. Following a 2022 merger, the Alliance of Academic Health Centers and the Alliance of Academic Health Centers International broadened the AAMC's U.S. membership and expanded its reach to international academic health centers.

Restructuring the NIH RPG review process is a promising mechanism to reduce the existing biases that that contribute to disproportionate funding outcomes.[2,3,4,5,6,7,8, 9] AAMC agrees that reducing bias and reviewer burden is a worthy goal for NIH to address – one that forms the bedrock for a more diverse, equitable and inclusive national biomedical workforce, culture, and research portfolio. **However, the AAMC believes that the current proposed changes are not sufficient to accomplish the NIH's stated goals to address bias in the peer review process and to reduce reviewer burden.** The AAMC has garnered perspectives from the academic medicine community,[10] including research deans and deans for diversity, equity and inclusion; to provide recommendations to the Center for Scientific Review (CSR) and NIH on modifications and consideration to help the current review framework proposed align with the NIH's proposed goals.

The AAMC has long supported NIH's goals for equity and inclusiveness and has previously commented on the UNITE Initiative to Address Structural Racism in Biomedical Research, the Chief Officer for Scientific Workforce Diversity Strategic Plan, and the NIH Strategic Plan for Diversity, which all pinpoint reforms to the peer review process as a strategy to mitigate bias and foster the distinct but overlapping missions of these initiatives.[11,12,13] Here, we propose recommendations that address the two primary goals identified by NIH:

1. Refocusing first-level peer review on its singular role of providing advice to the agency regarding the scientific/technical merit of grant applications, *relieving reviewers of responsibility for administrative/policy compliance items, reducing burden and incentivizing participation in review.*

2. Mitigating reputational bias in the peer review process – *specifically, refocusing the evaluation of investigator and environment in the context of the proposed research project.*

Recommendations

The AAMC applauds NIH's prioritization of peer review and shares in the urgency to reduce bias and burden. This RFI garnered significant attention from AAMC members – demonstrating a shared, vested interest in these goals from the biomedical community. However, the AAMC feels that the current proposed changes are not sufficient to meaningfully reduce bias in the peer review process and reduce reviewer burden. Below we offer recommendations to optimize the NIH's goal.

- *Implementation of a two-tiered 'blind review' model:* To reduce bias in the peer review process, the AAMC recommends that the NIH consider the **implementation of a two-tiered 'blind review' model**. Under such a model, an initial review would assess short, de-identified descriptions of a proposal's significance and approach (equivalent to the proposed factors one and two), followed by a review of the full proposal, identifying the investigators and institution. This model would allow for an investigator's previous record to be taken into the overall critique, while not inadvertently serving as the sole or determining factor. The model would be similar to the peer review framework utilized by the U.S. Army Medical Research and Development Command Congressional Special Interest Program, which was based on recommendations by the National Academy of Sciences National Institute of Medicine, and which supports many areas of medical research. Specifically, the Congressionally Directed Medical Research Program's (CDMRP) two-tiered review process[14] is a demonstrated model for reducing bias, focusing peer reviewers' effort, and ensuring scientific excellence. Some philanthropies employ similar models.

- *Pilot test the approach before implementation:* Whether the NIH maintains their proposed framework as is, or modifies components based on feedback, we strongly advise the NIH to **pilot test the approach among several study sections** before implementing it broadly. The AAMC recognizes the effort to reduce bias in peer review as an immense task laden with complexities, tensions, and nuances. For example, a seemingly contradictory tension arises when trying to remove bias due to investigator and environment, while simultaneously striving to evaluate components of one's environment, such as an investigator's track recording for fostering diversity, equity, and inclusion (DEI). To get a better sense of these so called 'tensions' as well as assess outcomes of the proposed framework, **we strongly suggest evaluating the effectiveness of the proposed framework in a realistic setting.** A side-by-side 'mock study section' in which the proposed framework is evaluated against the current review system will allow the NIH to discern any measurable outcomes and issues of their framework before broad adoption/implementation.

- *Factor 3 should be a scorable criteria*: The AAMC believes that the lack of a scoreable criteria on *how* factor 3 ("Expertise and Resources") will be integrated into the overall RPG score, undermines the goal of reducing bias. RPGs are one of the single biggest levers to foster a scientific culture that is more inclusive, equitable, and positive. **Thus, the AAMC suggests that, in lieu of removing a score, more specific, scoreable criteria be added into factor 3, namely around diversity and mentoring requirements in grants.** Because 'environment' is defined broadly and encapsulates many different dimensions (e.g., departmental, infrastructure, institutional, research space), the loss of a tangible score in this category might likewise lead to the loss of important information required to accurately assess an investigator's ability to foster an environment that supports DEI, mentorship, and training.

- *Increase Gender and Racial/Ethnic Diversity of the Reviewer Pool:* The composition of NIH study sections is largely homogenous and lacking in representation. Less diverse perspectives may contribute to a narrower set of criteria around the evaluation and selection of awarded grants and may also place less value on certain fields of study (e.g., community-based or health disparities research), which often attract underrepresented scientists. **The AAMC encourages NIH to formalize a process that ensures adequate reviewer diversity**, a mechanism to not only reduce bias, but advance the careers of individuals from historically marginalized and excluded communities.

- *Communicate measurable outcomes of proposed changes:* Though the AAMC heartily agrees with NIH's efforts to reduce bias and burden in the peer review process, we note a lack of clarity regarding observable outcomes that the NIH hopes to achieve from the implementation of this framework. Prior to implementing such a framework, **the NIH should develop and communicate measurable outcomes and evaluation criteria for the proposed framework.**

- *Reduce reviewer administrative tasks:* The AAMC greatly appreciates, and heard resounding gratitude, at the NIH's goal of reducing reviewer burden in the peer review process. However, it is not apparent how the proposed changes will translate to a noticeable reduction in reviewer burden. **The AAMC suggests allocating administrative tasks not directly related to the scientific proposal to NIH staff.** An additional mechanism to reduce reviewer load and incentivize participation is to change RPG submissions to consist solely of the research proposal, biosketches, and an abbreviated budget, with the other components to the RPG subsequently requested and reviewed only for highly scored grants.[15]

- *Fortify the Appeal Process/Empower Scientific Review Officer (SRO):* The AAMC community felt that the appeals system in the peer review process was insufficient and ineffective. **Providing more tools for both the RPG applicant and the SRO to appeal was proposed as a mechanism to ensure that the feedback provided in the applicant review does not diverge from the provided grant scores.**

- *Diversity, Equity, and Inclusion (DEI) Training:* The NIH has a well-documented system of peer reviewer bias training. Specifically, "91% of surveyed reviewers thought that reviewer training substantially improved their ability to identify bias in peer review and 93% said [the training made them] substantially more comfortable intervening against bias."[16] **The AAMC proposes that *every* study section member (as well as the SRO and program staff) be trained in anti-bias best practices**, and in conjunction with the chair, work to reduce bias as it presents itself.

In summary, the AAMC appreciates the opportunity to submit these comments to NIH. The AAMC is aligned in NIH's goal to advance the mission of scientific peer review, thus expanding the inclusive excellence of the biomedical workforce. To better align the proposed goals with NIH's framework, the AAMC suggests the implementation of a pilot-tested framework that contains a scoreable criteria for Factor 3. Considering the implementation of a two-tiered 'blind review' model, implementing strategies to lead to a more diverse study section, mandatory anti-bias training, and applying a more concrete appeals process are other key mechanisms that we highlight as strategies to achieve the stated goals. The AAMC and its constituents are happy to stay engaged and to provide additional feedback as the NIH continues to consider implementing a new review framework. Should you have any questions regarding this response, please contact me at rmckinney@aamc.org or Julia Omotade, PhD, Senior Specialist, Science Policy, at jomotade@aamc.org

Sincerely,

Ross McKinney, MD
Chief Scientific Officer

cc: David J. Skorton, MD, President and Chief Executive Officer

---

[1] A Healthier Future for All: AAMC Strategic Plan
[2] NIH: Racial Disparities in NIH Funding
[3] Ginther DK, Schaffer WT, Schnell J, Masimore B, Liu F, Haak LL, Kington R. Race, ethnicity, and NIH research awards. Science. 2011 Aug 19;333(6045):1015-9. doi: 10.1126/science.1196783. PMID: 21852498; PMCID: PMC3412416.
[4] Hoppe, et al. Topic choice contributes to the lower rate of NIH awards to African American/black scientists. *Science Advances*, 2019. DOI: 10.1126/sciadv.aaw7238
[5] Ginther, D. K., Kahn, S., & Schaffer, W. T. (2016). Gender, race/ethnicity, and National Institutes of Health R01 research awards: Is there evidence of a double bind for women of color? *Academic Medicine, 91*(8), 1098–1107.
[6] Ginther, D. K., Haak, L. L., Schaffer, W. T., & Kington, R. (2012). Are race, ethnicity, and medical school affiliation associated with NIH R01 type 1 award probability for physician investigators? *Academic Medicine, 87*(11), 1516–1524.
[7] Hoppe, T.A., Litovitz, A., Willis, K. A., Meseroll, R. A., Perkins, M. J., Hutchins, B. I., . . . Santangelo, G. M. (2019). Topic choice contributes to the lower rate of NIH awards to African-American/black scientists. *Science Advances.*
[8] Katz, Yarden and Ulrich Matter. 2017. On the Biomedical Elite: Inequality and Stasis in Scientific Knowledge Production. Berkman Klein Center for Internet & Society Research Publication.
[9] https://www.science.org/content/article/relatively-few-nih-grantees-get-lion-s-share-agency-s-funding
[10] Including the following AAMC professional development groups: the Group on Research Advancement and Development (GRAND); the Group on Research, Education and Training (GREAT); the Group on Women in Medicine and Science (GWIMS); the Group on Faculty Affairs (GFA); and the Group on Diversity and Inclusion (GDI)
[11] AAMC Comment Letter: NIH UNITE Initiative
[12] AAMC Comment Letter: Chief Officer for Scientific Workforce Diversity Strategic Plan
[13] AAMC Comments: NIH Strategic Plan for Diversity
[14] CDMRP's Two-Tiered Review Process

[15] Stein CM. Academic clinical research: Death by a thousand clicks. Sci Transl Med. 2015 Dec 16;7(318):318fs49. doi: 10.1126/scitranslmed.aab3490. PMID: 26676604.
[16] CSR: Reviewer Surveys — Feedback on CSRs' Bias Awareness and Mitigation Training