Dr. Jayanta Bhattacharya, MD, PhD
Director, National Institutes of Health
9000 Rockville Pike
Bethesda, MD 20892

Re: NOT-OD-25-138

Dear Director Bhattacharya:

The American Physiological Society (APS) is a U.S.-based nonprofit society publisher of 16 journals. The Society's more than 8,000 members conduct cutting-edge physiological research at institutions across the country, and the majority of them rely on funding from the National Institutes of Health (NIH). APS appreciates the opportunity to provide input as NIH seeks to maximize the value of research grants, with the shared goal of advancing science for the benefit of the American people.

APS is committed to providing high-quality open access options to ensure that authors can share their research widely. We do this in a variety of ways that serve both authors and readers. APS owns:

- One diamond journal (free for both authors and readers under an open license).
- Two gold open access journals (where costs are recovered entirely through article processing charges).
- Three hybrid subscription journals (offering optional open access with an article processing charge).
- Ten original research journals under the Subscribe to Open (S2O) model (where if enough libraries subscribe each year, we provide immediate free access with low publication fees).

S2O is a novel model that APS began piloting in 2025. S2O allows APS to maintain rigorous peer review, provide long-term stewardship of the scientific record, and reinvest in the physiology community. APS encourages NIH to adopt policies that enable experimentation and support flexible, community-led approaches to open access—approaches that prioritize author needs, support innovation, and ensure the sustainability of nonprofit publishers that reinvest in the scientific community.

The White House's May 23, 2025, Executive Order on Restoring Gold Standard Science cites the importance of reproducibility, rigor and unbiased peer review in restoring trust in the scientific enterprise. APS agrees that these foundational principles are critical to sound science, and they are applied throughout the society's journal program. High-quality scientific publishing requires substantial investment in editorial oversight, peer review and ethics management, content curation, technology infrastructure and long-term preservation.

Peer review
When articles are submitted to APS journals, they undergo a rigorous peer review process led by subject matter experts. APS invests substantially in the infrastructure required to make this an efficient and robust process, including compensating the editors who oversee the peer review of manuscripts. Upon submission of an article to an APS journal, research methods are checked using an external tool that provides an initial measure of rigor and reproducibility. After an article is referred for review, a comprehensive checklist[1] is used by the reviewers to ensure that the research being presented meets standards for rigor and reproducibility. The checklist addresses adherence to requirements for human and animal research; detailed information on the use of cells, antibodies, and other reagents; and standards for presenting data.

Research integrity
Once articles are accepted, they are copyedited and formatted for deposition into repositories as accepted manuscripts. This process is critical for minimizing errors in the published literature. Research published in APS journals also undergoes review for ethical issues to ensure the integrity of the science being published. APS reviews articles for potential ethical issues before publication and is also a key stakeholder in ensuring the post-publication integrity of the scientific record. When concerns about previously published articles are brought to the attention of the Society, APS works with authors and institutions to address and resolve any potential issues. The costs associated with ensuring research integrity are growing over time as technology evolves and new threats to research integrity emerge. Providing these services requires significant investment by APS in technology and human resources.

Innovation
Over the 127 years that APS has served as a community-led scientific publisher, the publishing world has undergone dramatic changes, moving from journals exclusively printed on paper to a digital and online format. APS and other society publishers have invested in developing and implementing the technology necessary to continue publishing high-quality content that serves the needs of the scientific community and the public as those needs evolve. APS, along with many other publishers, have also invested resources in digitizing the historical scientific record. This is only possible when there is a business model available that provides sufficient resources to make these investments.

As detailed above, publishers invest heavily in technology, infrastructure and human resources needed to produce and maintain high-quality scientific literature. Publishing trustworthy high-quality journals costs money. Several of the proposed options would not cover the costs of publication, making it unsustainable for smaller nonprofit U.S. publishers like the APS. Government restrictions on pricing could stifle innovation in publishing models and undermine the financial viability of nonprofit publishers.

Restrictions on pricing also represent a risk to individual researchers who rely on NIH funding to support their work. A robust record of publication is a requirement for career advancement in the sciences, providing a recognized measure of scholarship. It is essential that researchers have access to adequate funds to publish their research, share their findings, and illustrate their productivity.

Comments on presented options

Option 1: Disallowing all publication costs on NIH grants runs counter to the goal of producing gold-standard science. While preprints are a valuable tool for the timely communication of research findings, preprint servers do not offer systematic peer review, copy editing and other safeguards to ensure research integrity and long-term preservation of content. The preprint server for biology, bioRxiv, states in its frequently asked questions[2] that "readers should therefore be aware that articles on bioRxiv have not been finalized by authors, might contain errors, and report information that has not yet been accepted or endorsed in any way by the scientific or medical community." Disallowing all publication costs on NIH grants will disadvantage authors from institutions with fewer resources to help their faculty publish. Some well-resourced investigators may have access to funds for publication, but most do not.

Option 2: Imposing a uniform fee per article is overly restrictive and risks negatively impacting scientific publishing. Publication costs vary widely based on discipline, journal scope, publishing model, volume of content peer reviewed and published, and community needs. APS's cost to publish an article exceeds the amount proposed in this option as well as Option 3. Imposing uniform limits on publication costs will restrict researchers' ability to choose the journals aligned with their work, especially in specialized or interdisciplinary fields like physiology. Physiology is a broad field with many subdisciplines. APS's unique journal program provides channels for authors seeking to share their work with the communities best suited to learn from and build upon their published research.

Limiting publication costs may also drive publishers to prioritize the number of articles published over the quality of the articles. This would disadvantage nonprofit society publishers like APS that are committed to publishing high-quality content rather than publishing high volume.

Establishing a static limit on publication costs without a mechanism for providing increases means that over time inflation will erode society publishers' capacity to innovate and reinvest in their communities.

Option 3: Peer review is a critical and long-standing aspect of professional service for scientists, whether it is review for grant funding or publications. Researchers generously share their time and expertise with the understanding that their own work will, in turn, be thoughtfully reviewed by their colleagues. Reviewers also derive benefits from serving in this capacity, increasing their knowledge of their field, learning about the publication process, gaining recognition among their peers, and creating new opportunities for collaboration and networking.

Compensating peer reviewers, while an area of experimentation for some publishers, is not without the risk of introducing potential bias and conflict of interest and will cause administrative burden. With an average of three reviewers per paper, this approach would require new technology systems to manage numerous new payments and navigate regulatory and currency compliance across global jurisdictions. This would be an unsustainable administrative and financial burden, particularly for smaller publishers.

As proposed, Option 3 does not address how publishers would recoup the cost of peer review of rejected manuscripts. The proposed scope of the request for information specifies that publication costs are only allowable for accepted articles. For journals with both high submission and high rejection rates, this would make fair compensation of peer reviewers especially challenging and could further exacerbate the quality vs. quantity trade-off as referenced above under Option 2.

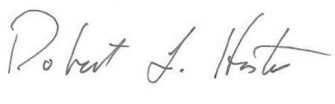
Option 4: Setting an overall limit on the amount of grant funds that can be used for publication costs could potentially allow the flexibility necessary for authors to select the most appropriate journal option for their research. However, depending on the overall limit, this option may disadvantage highly productive researchers who publish a large volume of articles. NIH should also consider that the frequency of publication may vary between research fields and change over time based on the pace of research findings.

Option 5: Combining per article fee limits and setting an overall cap on the amount of grant funds that may be used for publication costs would carry many of the same concerns raised for Options 2 and 4, in addition to being the most complicated to track and implement.

APS supports open access that is inclusive, sustainable and fair
Restrictive pricing policies are likely to have a disproportionate impact on small nonprofit U.S. publishers like APS and the researchers that rely on our journals to publish their work. With this policy, over time, the society would have fewer resources to invest in its publications program, as well as the programs that support physiologists throughout their careers, which is part of the Society's mission These efforts include providing mentorship opportunities and career resources, awards that recognize scientific excellence and contributions to the discipline, and hosting scientific meetings where members share their research and interact with their peers. These programs support the scientific workforce and nurture the development of the next generation of researchers, which is essential as the U.S. seeks to maintain its global leadership in biomedical research.

APS and other society publishers play a critical role in maintaining editorial independence, community support, and subject-specific expertise. A thriving, competitive market helps preserve these values while giving authors meaningful choices. APS urges NIH to adopt policies that support flexible, community-led approaches to open access—approaches that prioritize author needs, support innovation, and ensure the long-term sustainability of nonprofit publishers that reinvest in the scientific community.

Sincerely,



Robert Hester, PhD, FAPS
President
American Physiological Society

[1] https://journals.physiology.org/pb-assets/PDFs/APS_Rigor-Reproducibility-Guidelines-1744759529307.pdf
[2] https://www.biorxiv.org/about/FAQ