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Office of Science Policy National Institutes of Health 6705 Rockledge Drive, Suite 630, Bethesda, MD 20892

Submitted via <u>electronic form</u>

Re: Notice Number NOT-OD-23-091

Thank you for the opportunity to submit comments on NIH's draft Public Access Plan. SPARC is a non-profit advocacy organization that supports systems for research and education that are open by default and equitable by design. Our membership includes over 200 academic and research libraries across the U.S., serving institutions ranging from large research intensive universities to community colleges. We believe that sharing knowledge is a human right, and that everyone should be able to access and contribute to the knowledge that shapes our world. Our members are committed to supporting equitable systems of research and education, and we appreciate the opportunity to comment on NIH's draft plan to implement the landmark 2022 OSTP Memorandum on Ensuring Free, Immediate, and Equitable Access to Federally Funded Research.

NIH's draft plan provides a strong foundation for the agency and the public to fully realize the benefits of open science. Eliminating the existing 12-month embargo enables free and fast access to the results of the more than \$40 billion in biomedical research that the agency funds each year. As noted by the OSTP Memorandum, the 12-month embargo limits "immediate access of federally funded research results to only those able to pay for it or who have privileged access through libraries or other institutions. Financial means and privileged access must never be the prerequisites to realizing the benefits of federally funded research that the American public deserves." Removing the embargo will open up endless opportunities for new collaborations, accelerate the speed of critical discoveries, and improve lives.

Our responses to the four questions outlined in the Request for Information (RFI) offer additional steps for NIH to consider to further strengthen its plan and to address inequities in the research ecosystem.

Question 1: How can NIH best ensure equity in publication opportunities for its investigators?

SPARC strongly supports the OSTP Memorandum's emphasis on ensuring equity in contributing to, accessing, and benefitting from the results of federally funded research, and we appreciate NIH's specific attention on how to ensure equity in publication opportunities for its funded investigators. As the research process has shifted to the digital environment, a wide variety of channels designed to support more rapid, frequent, and iterative communication of research findings have emerged.

It is vital that researchers have compliance options that do not present them with financial barriers. To that end, NIH should make it clear that investigators can fully comply with its public access policy by depositing their author's accepted manuscripts into PubMed Central (PMC) or any other agency-approved repository—and that there is no charge to do so.

In its guidance, it is important for NIH to make clear that any fee that investigators may be asked to pay is a publication fee, and **not a fee required by NIH to comply with its policy.** It is critical that investigators do not conflate compliance with article processing charges (APCs), which create significant barriers for less-well-resourced investigators and institutions to make their research available.

There are a growing number of communications options that provide free, immediate access to research outputs that do not rely on unnecessary and unsustainable author-side charges for investigators. NIH should actively encourage the use of publication channels that do not present financial barriers, including non-APC supported open access journals, publications from non-profit university presses, and scholarly society publishers that allow repository deposit and full reuse of author manuscripts, preprint servers, and other emerging community-driven options.

We also note that institutional repositories run by libraries and other research institutions generally do not charge authors to deposit articles or manuscripts, and could play an important role in easing compliance burdens on investigators, improving discoverability of research outputs, and providing long term preservation support. We recommend that NIH engage with the U. S. Repository Network (which recently released the "Desirable Characteristics of Digital Publication Repositories" document) to identify additional repositories that meet NIH's criteria for depositing publications.

To accelerate and sustain equitable research communication practices in the long term, it is critical that research assessment and career advancement incentives be updated to actively promote equity in publication opportunities. NIH should look for opportunities to better align its awards process with equitable research communication practices, such as avoiding journal-based metrics and recognizing preprints. It would also be useful for NIH to engage with ongoing efforts designed to address this important area, including The NASEM Roundtable on Open Science and the Higher Education Leadership Initiative for Open Scholarship (HELIOS).

NIH's efforts to ensure equity in publication opportunities for its investigators naturally align with the critical work of the National Science & Technology Committee's (NSTC) Subcommittee on Equitable Data. SPARC strongly supports the Subcommittee's work to "Build Capacity for Robust Equity Assessment for Policymaking and Program Implementation" and recommends NIH coordinate the implementation of its public access plan with the NSTC Subcommittee and the Department of Health and Human Services' (HHS) Equity Action Plan. Additionally, the public access plan should be included in HHS' equity assessments and disparity impact strategies.

Question 2: What steps can NIH take to improve equity in access and accessibility of publications?

The early stages of the COVID-19 pandemic demonstrated the importance of full reuse rights when, after prompting by global leaders, publishers made COVID-related articles immediately available in PMC under article-level licenses that allowed for full reuse and secondary analysis. Within the first two weeks, these articles had been accessed or downloaded over 2 million times—greatly accelerating the rate of discovery, speeding the translation of science, and increasing the community's understanding of the virus. This temporary shift in practice highlights the need for a permanent change making federally funded research publications both immediately available and fully reusable in order to provide much broader, real-time returns on taxpayer investments in scientific research.

The OSTP Memorandum asks agencies to "make federally funded publications, data, and other such research outputs and their metadata...findable, accessible, interoperable, and reusable, to the American public and the scientific community in an equitable and secure manner." To fulfill the reusability requirement, NIH should ensure that all publications resulting from NIH-funded research carry open licenses and that NIH authors can explicitly retain the rights needed to authorize those open licenses, regardless of whether authors deposit an author accepted manuscript or a final published article. To this end, placing a CC BY license or its functional equivalent on a publication is the best way to ensure that publications can be freely accessed and fully reused.

NIH should ensure that it obtains sufficient rights to provide the public with the full benefits of the research that it funds. In particular, as the OSTP Memorandum directs, the public should be able to access final peer-reviewed accepted manuscripts freely, without embargo or delay, and under terms that make them fully reusable. The agency should seek to achieve this result in a manner that minimizes complexity and burden in compliance by grantee institutions and individual researchers.

Question 3: How can NIH best monitor evolving costs, specifically publication fees, and impacts on affected communities?

At SPARC, we are deeply concerned about the financial barriers that author-side fees, particularly Article Processing Charges (APCs), present to authors and the significant additional negative effects these have on the research ecosystem. APCs are rising very rapidly in price,

driving an overall increase in the cost of research communication that presents a growing risk of tradeoffs in diverting funds away from the research process itself. The diversion could negatively affect the budget needed for materials and equipment, supporting postdocs, and professional development opportunities including presenting research results at conferences.

APCs create prohibitive barriers to publication that negatively impact many researchers, especially in instances where publishing in particular APC-based journals is viewed as important for career advancement. This results in fewer opportunities for individual researchers to share their results with the scientific community and the public. This is extremely troubling from an equity perspective, as studies have documented that APC costs disproportionately affect younger researchers, female researchers, and those at less well-funded institutions.

It is important for NIH to be aware of these impacts, and to actively monitor the impacts of any publication charges across demographic groups in the research ecosystem. For example, NIH should establish a baseline understanding of the environment by collecting data on the number and makeup of its current funding recipients who are charging publication fees as direct costs to their research grants and analyzing that data across different demographics (e.g., minority-serving institutions (MSIs), EPSCoR-eligible institutions, IDEA-eligible institutions, researchers in less-well-resourced disciplines, etc.)

Data collection on the amount spent to publish NIH-funded research regardless of the source would increase transparency and insight into how these fees affect various communities - including the potential impacts on publishing opportunities.

Question 4: Early input on considerations to increase findability and transparency of research.

Ensuring that the results of NIH-funded research along with metadata containing information about who conducted the research, where it was done, and with what resources is an important component of the NIH Public Access Plan.

To complement continued requirements for internal identifiers (PMCIDs, GenBank accession numbers, etc), NIH should require the use of external persistent identifiers (PIDs). Specifically, NIH should adopt DOIs for publications, data sets, and DMPs, ORCIDs for researchers, and RORs for institutional affiliations, all of which are nonproprietary community standards for each identifier type. NIH should also explore the use of the DOI system to overlay NIH's current unique identifiers for awards.

Because similar identifiers will be required to be used by all federal agencies as a result of the OSTP Memorandum, NIH should coordinate its efforts with other participants in interagency working groups, including the National Science and Technology Council's (NSTC) Subcommittee on Open Science, to identify best practices and potential standards. NIH also should consider collaboration with standards bodies, such as the National Information Standards Organization (NISO), to develop a framework and set of standards for a national PIDs strategy to facilitate smooth implementation.

Given the growing centrality of PIDs in research infrastructure, it is essential that the NIH and other federal agencies only adopt nonproprietary identifier types that enable the broadest possible use and allow anyone to leverage this information in new and innovative ways.

SPARC appreciates the opportunity to provide comments, and we applaud the agency for its continued leadership in ensuring public access to taxpayer funded research. We look forward to working with the agency to fully accomplish the goals outlined in the OSTP Memorandum and to leverage the full value and utility of NIH-funded research.

Sincerely,

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