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The Federation of American Societies for Experimental Biology (FASEB) appreciates the opportunity to provide feedback on the National Institutes of Health (NIH) plan to increase findability and transparency of research results through the use of metadata and persistent identifiers as published in the NIH Guide on December 17, 2024. We applaud the agency's commitment to enhance public access to NIH-supported research and ensure transparency of research findings. FASEB's comments on specific sections of the plan are provided below.

Section I.D., Reporting PIDs to NIH (pages 5 – 6)
FASEB supports NIH's expectation for NIH-supported institutions and NIH intramural investigators to include PIDs in proposals for funding and research performance progress reports. This will facilitate proper attribution of prior works and increase the agency's ability to link investments with research outputs. While the majority of NIH-funded investigators are already reporting PubMed Central Identifiers (PMCIDs) in their grant applications and progress reports, PMCIDs do not fulfill the interoperability requirements included in the 2022 White House Office of Science and Technology Policy Memorandum on *Ensuring Free, Immediate, and Equitable Access to Federally Funded Research.* Therefore, FASEB encourages the use of digital object identifiers (DOIs) and ORCiD identifiers in grant applications and progress reporting.

Section I.E., Citing and Cross-Linking Metadata and PIDs (page 6)
The NIH Plan encourages researchers to add their research outputs to their ORCiD records. While FASEB appreciates the sentiment of this recommendation, relying only on investigator inputs is not a best practice within the ORCiD community. For publications, data deposition, and employment, the authoritative sources to write to an ORCiD record are the publisher, repository, or employer/institution - not the individual. The authoritative source is defined as the entity that completes the action (e.g., publishes, posts datasets, employs the researcher at their institution). Therefore, we suggest that NIH update this section to encourage researchers to opt in with the publisher, data repository, and their institution to write to their ORCiD record. If not already the case, FASEB urges NIH to serve as the authoritative source for confirming grant awards reported to ORCiD records.

Section II.B., Collecting and Making Metadata and PIDs Publicly Available (page 7)
FASEB applauds NIH's decision to develop a minimum set of metadata standards for scientific data repositories to collect and make publicly available, echoing our prior comments on the draft NIH

[Strategic Plan for Data Science, 2023 - 2028](). This first set of metadata standards are broadly applicable, addressing general needs such as the researchers who generated the data, their affiliated institutions, and associated funding and publications. FASEB encourages NIH to continue development of additional specific metadata standards for the various types of scientific data being reported. The loss of information between data collection and data reporting data leads to slower uptake of research reuse projects and limits the usability of data being reported. To facilitate this critical step, FASEB strongly recommends NIH issue Notices of Funding Opportunities (NOFOs) to support workshops or related convenings to establish metadata standards that are broadly applicable to specific research domains. Improving the types and quality of metadata reported with data files will enhance the return on NIH's research investments.

Section III, Assigning Identifiers for NIH Awards and NIH-Conducted Research Projects (page 8)
 FASEB recognizes that NIH grant award numbers have been in existence for a long time, and have a meaningful structure that provides staff and researchers with relevant information about the grant, including the type of application, category of support, institute or center associated with the grant, unique identifier for the individual grant, current year of support, and suffixes for supplements, amendments, or fellowship institutional allowances. This same type of information could also be captured in parts of the digital object identifier (DOI), a unique number designed to be used by humans as well as machines. DOIs are persistent identifiers with a set structure that provides reasonable flexibility for various use cases, are broadly indexed and globally adopted as a default identifier, and enable citation and linking between publications, datasets, and software. The DOI suffix can be almost any string of characters and symbols so long as those characters are allowed in a URL. Adopting DOIs for research grant awards would provide the global community with the most rapid integration of grants with publications, datasets, and software, enabling a clear path for maximizing access to, use of, and connections between these output types, improving the ability to track research outcomes and impact. FASEB encourages that NIH adopt the digital object identifier (DOI) as the persistent identifier for NIH awards and NIH-conducted research projects.

Thank you for providing the research community with an opportunity to review and comment on the proposed plan.

Sincerely,

Beth A. Garvy, PhD
FASEB President