



FASEB

Federation of American Societies
for Experimental Biology

Representing Over 115,000 Researchers

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Public Comments

President's Council of Advisors on Science and Technology

Thank you for this opportunity to provide comments. I am speaking on behalf of the Federation of American Societies for Experimental Biology (FASEB). FASEB consists of 26 member societies that collectively represent over 115,000 biological and biomedical researchers.

FASEB supports data science and increased data sharing as they contribute greatly to scientific research and have the potential to increase the reproducibility. In a commentary on reproducibility published this week in *Nature*, the Director of the National Institutes of Health stated that, “[m]any of these failures have simple and practical explanations: different animal strains, different lab environments or subtle changes in protocol.” Although data science and data sharing could help identify many sources of experimental variability, this would require the collection of large quantities of metadata for datasets and even individual data points, which is often impractical or impossible. FASEB has described the pressing need to develop automated tools to collect, report, and share both experimental data and metadata.

FASEB also recognizes that many barriers to effective data sharing remain. For example, the majority of the effort and costs associated with the development of datasets are borne by the initial investigator with subsequent users being the primary beneficiaries of these efforts. Standardized citation of datasets, recognition of the effort involved in the development of shared datasets in tenure decisions and grant application reviews, and continued investment toward the development of data repositories will provide greater incentives for researchers to share their data in usable formats. The lack of harmonized regulations and guidance regarding data deposition and fragmented IT infrastructures are additional challenges that need to be addressed.

FASEB encourages the federal government to support efforts that would facilitate data and metadata collection and sharing and looks forward to opportunities to work with President's Council of Advisors on Science and Technology and the White House Office of Science and Technology Policy on these important issues.