



ASSOCIATION OF AMERICAN
UNIVERSITIES



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AAU and COGR Comments of NIH RFI on Preprints

Q1. Types of interim research products you or your organization create/and or host?

Association for American Universities (AAU), representing 62 distinguished research universities and the Council of Government Relations (COGR) are pleased to submit feedback to the NIH on the important issue of interim research products. Our organizations believe that a broader use of preprints could advance dissemination of life sciences research. Many AAU and COGR member universities have created or currently host and utilize these products.

Q2. Please provide feedback on what are considered to be interim research products and how they are used in your field.

Interim research products are: preprints of a scientific document, datasets, statistical or computational algorithms, preregistration of a methods in advance of the project and related research products leading to a formal, published document.

For example, the use of interim research products is greatly expanding in the field of genomics. Research in this field is shared quickly to capitalize on advances in data analysis. Github, Zenodo and figshare are examples of platforms used to share datasets. Scientists at our member universities often use www.biorxiv.org for archiving preprints and assigning DOIs. We are aware that several publishers allow authors to first deposit their paper as a preprint to bioRxiv before or at the same time as a submission to their journals to reduce the time for the information to reach other scientists.

Q3. Please provide insight on how particular types of interim research products might impact the advancement of science.

The potential advancement of science utilizing interim research products is two-fold. First, for increasing the scientist's research opportunities and secondly by rapidly sharing research findings for application. Preprints allow scientists to more quickly build a career portfolio. As the standard model of submissions to journals and waiting for review and eventual publication can take many months. Preprints could accelerate scientific

progress by quickly communicating work and allowing feedback on issues in research methodology or data collection. Sharing preprints increases the availability to a wide range of readers, not just those in a narrow specialty field.

Further, preprints are particularly well suited to report negative results, sharing methods and mathematical and computational models and datasets made available on preprint platforms encourage cross-discipline collaboration.

Q4. Feedback on potential citation standards

AAU and COGR concur with our ASAPbio colleagues' comments:

"Proper citation is essential for establishing credit for scientific work; this is inherent to the academic process. If works are not cited in bibliographies, they are less discoverable and their impact is difficult to assess by bibliometric methods".

In addition, the standardization of citation requirements such as permanent URL/DOI, authors and date of publication, would be useful to advance both utilization of these interim products and setting a baseline of what is required to make these products effective. Certainly, steps should be taken to allow for the searchability of preprints and link preprints to the final published versions.

Q5. Provide insight on the possible need and potential impact of citing interim products on peer review of NIH applications

One of AAU's largest members suggests that the new NIH bio-sketch format provides flexibility in reporting research products. Several members of its faculty have already included preprints, along with software and other products, in their submissions using that mechanism. Publications are increasingly not the only relevant research products and flexibility to submit preprints is important to allow all the contributions a researcher makes to be recognized by NIH reviewers. Unlike physical science, many life sciences do not have robust history of utilizing preprints. As the preprint practice expands beyond genomics, it is important to be cognizant of the validity of non-peer reviewed submissions and allow evaluation of the validity of the emerging preprint system but of any bias such submissions may introduce into the NIH review system.

Q6. Please provide advice on how NIH reviewers might evaluate citations of interim research products in applications

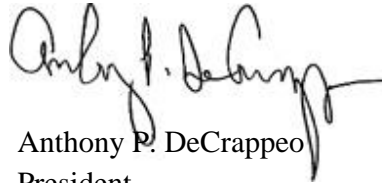
NIH currently allows the use of preliminary data in applications that is not peer reviewed, as a data to be considered. A preprint is similar in that it is non-reviewed data but may be more accessible than preliminary data in that it is assembled into a paper with all the details. Should NIH encourage the submission of preprint materials, NIH reviewers should be able to access the preprint for a ready assessment. Including preprints may allow a better understanding of the applicant's current work.

Q7. Any other relevant information?

While the use of preprints will likely assist in advancing science and the growing careers of your researchers, it is important NIH proceed carefully and deliberately in expanding the inclusion of preprint materials as part of a research package to ensure validity and proper citation of non-peer-reviewed materials.



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