1. Types of interim research products your or your organization create/and or host.

As a PI at an academic institution, I have posted a manuscript prior to journal submission to a preprint server and plan to do so for future work from my laboratory.

2. Feedback on what are considered to be interim research products, and how they are used in your field.

I consider preprints to be complete research products (as authors tie their reputation to these products and currently submit a nearly identical version for publication). The quality of preprints can be higher than what is submitted to journals as mistakes are not caught though copy-editing or peer review prior to posting online for the world to see. This is certainly the case in my personal experience. The number of checks and amount of feedback we solicited prior to posting our preprint far exceeded what I have done prior to first submissions to journals.

Preprint adoption is growing in the community. My understanding is that most are submitting preprints and either simultaneously or slightly before submitting a nearly identical version for publication. I am aware of instances in which preprints have led to invitations for faculty interviews and conference talks in my field.

I have fully integrated preprints in my own workflow. Currently, I have preprint email alerts set for topics of interest just as I do for Pubmed. Wherever allowed, I intend to cite relevant preprints for my grant applications and publications, indicating in the reference list which items are preprints in the interest of transparency. While conclusions may be refined and strengthened during peer review, the data/results in preprints are publicly available for evaluation by the reader. Certainly these products are more reliable and valuable than "personal communication" or "data not shown." I also plan to consider preprints when hiring postdocs as lengthy journal review processes can delay publication of major work from candidates' graduate training.

- 3. Insight on how particular types of interim research products might impact the advancement of science.
  - -Improves Quality of Research: Preprints have the potential to improve scientific work by allowing broad input from more than 2-3 reviewers that participate in journal peer review. While this is limited for preprints currently, feedback is likely to increase with preprint adoption.
  - -Speeds Career Advancement: As preprints are available for evaluation months to years sooner than peer reviewed journal articles, graduate students, postdocs and faculty can all demonstrate their productivity for career advancement by posting preprints. This allows us to evaluate work on merit rather than on the efficiency of the author in navigating the peer review process.
  - -Increases Collaboration: The wide distribution of preprints much earlier than journal articles can spark interest and increase the potential for collaboration from interested parties within and outside one's field.
  - -Facilitates Access: Broad dissemination of work via preprint posting makes cutting edge science available to all, not just those that are at institutions that can afford costly

subscription fees. This can stimulate scientific progress much sooner and from groups not traditionally able to contribute easily.

## 4. Feedback on potential citation standards.

Preprint citation should be allowed and considered at all levels (within journal articles, biosketches, CVs, job applications) as data contained within is fully available to be evaluated by all parties.

## 5. Insight on the possible need and potential impact of citing interim products on peer review of NIH applications.

The positive impact of citing preprints in NIH applications cannot be overstated. Given that a great deal of weight is put on the productivity of scientists during NIH application review, demonstrations of such productivity via preprints must be recognized. Preprints are much more direct and immediate measures of scientific productivity and progress than journal articles.

## 6. Advice on how NIH reviewers might evaluate citations of interim research products in applications.

These citations should be weighted equally with citations of peer reviewed work as all data contained within preprints are available for evaluation. Preprints should be rigorously evaluated but so should peer reviewed work. Neither should be immune to skepticism.