**ASAPbio Panel Session: Preprints in decision-making, 17 Feb 2016**

**1. Should papers on acceptable preprint servers be used as evidence for funding decisions**

answer: yes

- pro: more up-to-date view of work compared to publications

- pro: peer review of ideas in contrast of peer review of product of research

- pro: field of science requires a comprehensive repertoire of scientific activity

challenges:

- assumes that reviewers will read preprints

- to get those reviewing grants to not bias their assessment against things that are not in peer-reviewed journal form

- different drivers for promotion decisions vs funding decisions

--- promotion: retrospective review (documented contributions, evidence of track record)

--- funding: prospective review (track record, future plans)

**2. What is the value of preprints to funding agencies/promotions?**

value propositions:

- preprints don't have same value for retrospective and prospective evaluations

- preprints play roles at every level but at different degrees

opposing views on value

- preprints = publications

- preprints **<** publications

unresolved issues:

- is the expectation that preprint will lead to publication?

- preprints can/not include peer review

--- could possibly sit outside of journals

what do funders want to see in pre-prints?

- funders persuaded by community concensus

--- NIH: could relax requirement peer-reviewed publications and allow preprints

- 2 critical features

---1) speed: work must be made immediately available for quality assessment

--- 2) quality: clear method for evaluating preprints; must fit within cited literature but not sure how to weigh comments by non/anonymised experts

**3. What are the barriers to implementation?**

imbalance between funders and the community:

- scientists look for funders to lead the way

--- funders seen to have convening/influencing power

- funders look to the community to set standards, funders generally reluctant to apply a ‘stick’

key question: should funders have a permissive role, or active role?

- precedence: requiring all publications to be OA, requiring PMCID on grant applications

- should they make certain requirements mandatory (condition of grant) or just an option?

funder concerns around issues of timing, demand and quality

- 1) timing: preprints may sit on the server with no comments/reviews – e.g. ~10% of biorXiv articles have comments

- 2) demand: introducing preprints will hugely impact demand – e.g. ~ 17,000 reviewers per year review for NIH, reviewers already take ‘shortcuts’ because they can’t read all of the published work

- 3) quality: since preprints will represent work at various stages, how will quality be assessed?

**4. What features of preprints would funders endorse?**

reminder: archive is distinct from preprints

--- nothing keeps people from archiving data

features required by funders:

--- archivable, accessible, searchable, peer-reviewed, server interoperability, stability/sustainability

who owns/governs preprints?

- govt entitites/funders can own infrastructure (e.g. PMC), but need to be governed by the community

Suggestion 1:

- It would be helpful if funders articulated clearly that they will accept preprints as evidence of work and productivity.

Suggestion 2:

- Funders could publish annual reports (at the option of the scientist) on to preprint servers.

--- rationale: makes the information more broadly available, annual reports have no direct bearing on grant renewals (work usually captured as publication or preliminary data in the renewal application)

Suggestion 3:

- Data sharing plans required by funders could include publishing work on preprint servers.

**5. View of early career scientists**

main challenge/hurdle:

- requirements for a published paper, or a first-author paper

--- preprints could provide evidence of productivity and independence

challenges for new assistant professors (especially at undergraduate institutions)

- 1) pressures: write grants, publish papers, teaching

- 2) only resource are undergraduates and small start-up funds

--- increasing expectation for undergrads to publish papers to be competitive (e.g. med school, grad school)

--- preprints would help undergraduates to see their contribution to the scientific enterprise years before (if ever) the work is published

- 3) often the only ‘expert’ in the department

--- preprints would offer more opportunity for them to get peer feedback, esp. if they lack the professional networks or the funds to attend conferences

- 4) tenure committees have non-scientists

--- preprints would allow the scientist to demonstrate productivity and demonstrate the naturally slow progress of scientific work to a more general/lay audience

**6. Wre preprints: does health-related research distinguish the biomedical community from the physical science community?**

answer: no

- need for scientists to contribute to a higher purpose ("the greater good")

- priority is sharing information, harm if not sharing

- need to educate the public: allows them to see science in real time, all scientific work should be scrutinised/tested/validated

- sustainability needs public support