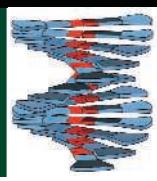

LETTERS

edited by Etta Kavanagh

Public Access Failure at PubMed

THE NIH PUBLIC ACCESS POLICY REQUESTS THAT NIH-SUPPORTED INVESTIGATORS SUBMIT FINAL peer-reviewed primary research manuscripts to the PubMed Central database (PMC) upon acceptance for publication (*1*). The policy went into effect 2 May 2005. As of January 2006, only approximately 3.8% of NIH-funded research papers published after 1 May 2005 had been submitted to the PMC repository (*2*).

Low compliance only tells part of the story. More than half of the manuscripts available on PMC were published before 2 May 2005 (*3*). Many reviews and commentaries, which fall outside of the scope of the request, and papers inappropriately made publicly available before the publisher's public access embargo were also found in the database. This suggests either wide misunderstanding of the policy or deliberate submission of papers falling outside the scope of the database.

The policy also allows posting of papers that differ significantly from the final published version, which has the potential to create intellectual property issues as each public disclosure of the research represents prior art in the eyes of the law. Also, there is no dedicated system to guarantee that corrections made after publication, which can be significant, are made to the author-submitted paper.

By NIH estimates, if only half of the eligible papers are submitted to the database, the cost would reach $2 million per year, or $62 per paper (*2*). Without a mandatory policy, however, submission of half of all eligible papers is unlikely. The NIH already provides close to $30 million annually to cover publication costs. As the policy expands, archiving could cost an additional $3 million (*4*).

The submission rate over the course of 2005 varied little. Submissions have increased significantly since then, but are still not approaching full compliance (*3*, *5*). Both internal and external warnings that, if voluntary, the program would fail were outweighed by the NIH's desire to allay the concerns of some publishers and those advocating public access policies.

There is some good news, though. Authors publishing in some of the more influential journals in biomedical research seem to have a higher compliance rate than the estimated average (*3*). There is no obvious link between journal cooperation and author participation or any clear explanation for the journal-to-journal variability, but it is still a positive sign for PMC.

> **"NIH's faltering experience** so far indicates that public access policies must be mandatory and curated if they are to have any chance of success."
>
> —Stebbins ***et al.***

Notably, we still lack a demonstrated desire by the general public for access to primary research papers, leaving the true public value of the repository an open question on a backdrop of a disinterested scientific community and angry publishers and societies. The public access movement is spreading quickly, nonetheless.

Senators Cornyn (R-TX) and Lieberman (D-CT) recently introduced the Federal Research Public Access Act (S.2695), which imposes a mandatory public access policy on publications resulting from research funded by all federal agencies with extramural research expenditures over $100 million. Not surprisingly, the bill has drawn criticism from many publishers and societies, some of whom feel that it unfairly places scientists between funding agencies and publishers. An April European Commission report recommends that funding agencies promote public access to research publications and suggests that agencies make compulsory deposition a condition for funding (*6*). Research Councils UK released a draft open access policy last June that called for a mandatory policy at the earliest opportunity (*7*).

NIH's faltering experience so far indicates that public access policies must be mandatory and curated if they are to have any chance of success. It would also be wise for there to be a real demonstration of public desire or need before we expand it to other agencies. Unfortunately, this experiment has cost taxpayers money and the NIH credibility.

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References

1. *Fed. Regist.* **70** (26), 6891 (2005).
2. See http://publicaccess.nih.gov/Final_Report_20060201.pdf.
3. See http://www.fas.org/pmc.
4. E. Zerhouni, *Science* **306**, 1895 (2004).
5. Statistics can be found at http://www.nihms.nih.gov.
6. See http://ec.europa.eu/research/science-society/pdf/scientific-publication-study_en.pdf.
7. See http://www.rcuk.ac.uk/access/index.asp.

Connectivity in Marine Protected Areas

MARINE PROTECTED AREAS (MPAS) ARE A PROMising tool for many problems, from biodiversity conservation to fisheries management (*1*). Their success depends on connectivity among protected areas and spillover into unprotected areas. In their Report "Scaling of connectivity in marine populations" (27 Jan., p. 522), R. K. Cowen *et al.* integrated key ecological factors important in the design of MPAs to show lower connectivity—i.e., reduced larval dispersal between and greater larval retention within reef systems—than previously predicted among Caribbean reefs. In the accompanying Perspective "Staying connected in a turbulent world" (27 Jan., p. 480), R. S. Steneck noted that connectivity will be further reduced by habitat fragmentation and overfishing. The solution Steneck noted, that marine resource managers must protect their reefs on a local scale, makes considerable ecological sense; practice and theory have shown that this will increase the abundance and size of fish, thereby promoting connectivity and spillover (*2*, *3*). A negative, evolutionary impact of local protection on connectivity may offset these advantages, however.