

Neurobiology of Lipids

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Scientific publishing: Personal view

SCIENTISTS, CONSIDER WHERE YOU PUBLISH

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For scientists, publishing a paper in a respected peer-reviewed journal marks the culmination of successful research. But some of the most prestigious and sought-after journals are so costly to access that a growing number of academic libraries can't afford to subscribe. Before submitting your next manuscript, consider a journal's access policy alongside its prestige - and weigh the implications of publishing in such costly periodicals. Two distinct problems continue to plague scientific publishing. First, institutional journal subscription costs are skyrocketing so fast that they outstrip the ability of many libraries to pay, threatening to sever scientists from the literature. Second, the taxpaying public funds a terrific amount of research in this country, and with few exceptions, can't access any of it. These problems share a common root - paid access to the scientific literature.

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Consider some figures. Subscription fee increases for academic journals have surpassed inflation six-fold throughout the past decade, and the sharpest increases belong to journal titles in medicine and the basic sciences. The Association of Research Libraries examined subscriber spending between 1986 and 2001: by 2001, libraries were spending three times as much for fewer serial titles.¹ With fixed or declining budgets, some academic and institutional libraries can't afford to subscribe to all the journals their scientists demand. Many are cutting acquisitions in the humanities and social sciences to compensate, still unable to keep pace. Scientists are being saddled with a pretty lousy legacy.

The dazzling rise in journal subscription costs is logical, considering publishers enjoy a monopoly over the articles in their journals. (If a researcher desperately needs an article published in *Cell*, a subscription to any other journal is useless.) Demand for titles is inherently inelastic, and publishers are free to command whatever prices they choose - schools pretty much have to ante up, until they simply can't afford to pay any more. Annual fees climbing into seven figures saw one UCSF campus cut off from Elsevier's *Cell Press* journals last fall. Furious, researchers demanded a boycott,^{2,3} and *Cell Press* quickly renegotiated. But

the problem remains - when even massive state schools like UC cringe at subscription tolls, reform is past due.

This publication industry depends entirely upon scientists: our research articles, and our commitment to contribute time and expertise peer-reviewing the work of others are absolutely essential. Amazingly, we provide these crucial commodities to publishers free of charge. Elsevier has never uncovered a single scientific result, but they sure do make a killing selling our own data back to us.

This fall is an exciting time: the government is finally taking action to ensure public access to taxpayer-funded research. By Dec. 1, the NIH - backed by the U.S. House of Representatives Appropriations Committee^{4,5} - will begin demanding that a full-text copy of every NIH-funded manuscript be deposited in the established PubMed Central repository,⁶ available free of charge after a six-month holding period. And that's not all: any article whose publication costs were paid with NIH monies must be made available free of charge, immediately.

This open-archiving plan is a welcome development, addressing the urgent need for some form of taxpayer access to publicly funded basic research.⁷ But it does little to ease the burden borne by academic libraries. The requisite six-month embargo, among other considerations, ensures that institutions will still need paid journal subscriptions.

Some publishers are furious over the government directive, bemoaning this interference with free enterprise and their imminent loss of revenue. Elsevier has posted outlandish profits and enjoyed pristine stock ratings for years. Now, the spotlight is on them, the people demand open access, and the party's over. Blame my liberal leanings, but I'm unsympathetic to the cries of a cadre of profiteering monopolists.

If you follow science opinion at all, you're probably familiar with the open-access debate, the upshot being something like this: big corporate publishers are evil but terrific for your career, and upstart open access journals are the squeaky-clean also-rans that won't help your chances of landing a job. The prestige of publishing in the old guard journals is undeniable, and by all accounts, intoxicating.

As students and young researchers, you may not yet enjoy ultimate control over the journals in which

you publish. You may prefer to place your personal advancement over public access to your work -- and while the entrenched hierarchy continues to reward this behavior, you'll meet little opposition. But before you fire off that next manuscript to Cell, consider this: scientific journals exist to record and disseminate research results, not to make publishers rich or restrict access to vital information.

Some journals are already working to provide some form of free access to published work -- others steadfastly refuse and fight any government pressure to do so. True open access alternatives do exist, and with the arrival of high-profile journals like PLoS Biology, PLoS Medicine and PLoS Genetics, they can be quite prestigious indeed.⁸ Familiarize yourself with the landscape before choosing sides. As educated scientists, it may be refreshing to consider that where you publish is but a shorthand for the quality of your work. You do, always, have a choice.

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REFERENCES AND FURTHER READING

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URGENT ACTION REQUEST

Time is running short -- if you haven't already done so, please register your support with the National Institutes of Health (NIH) for their proposal to make articles on NIH-funded research available to the public free of charge.

The public comment period ends on November 16, 2004. Let NIH know today that you agree with their concept and implementation plan. Use the form at http://grants.nih.gov/grants/guide/public_access/add.htm or e-mail your comments to <PublicAccess@nih.gov>.

BACKGROUND

The National Institutes of Health (NIH) has proposed a plan to make research articles based on NIH funding available to the public free of charge in PubMed Central within six months after publication in a peer-reviewed journal. You'll find the NIH public access proposal at <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-04-064.html>.

The proposal has been endorsed by a growing number of organizations and individuals, including:

- * National Academy of Sciences
- * Association of American Universities
- * Association of Independent Research Institutes
- * More than 60 members of the Alliance for Taxpayer Access, including patient organizations, library associations, individual libraries and universities, and others (see <http://www.taxpayeraccess.org>)
- * 25 Nobel Prize winners www.taxpayeraccess.org/bof.html.

However, the Association of American Publishers (AAP) is orchestrating an aggressive grassroots campaign to rally societies, journal editors, and others in opposition to the proposal. Their rhetoric is misleading and ignores the substantial benefits of the NIH plan. (See AAP's lobbying template at http://www.pspcentral.org/publications/grassroots_email.doc .)

The fact is, the NIH plan provides more than adequate protection for publishers' institutional subscriptions. We believe a six-month access embargo is a sufficiently high barrier to cancellation of biomedical journals. Moreover, the proposed policy only applies to NIH-funded research, so a high proportion of articles in a typical journal would not be available in NIH's PubMed Central.

The NIH proposal is a well-reasoned, incremental step that carefully balances the interests of various stakeholders -- taxpayers, academic institutions, libraries, scientists, publishers, and NIH itself. It is crucial that the library community signal its strong support.

CONTACT YOUR SENATORS, TOO

If you haven't already done so, also let your U.S. Senators know that you support the NIH plan. If you recall, the House of Representatives endorsed the NIH plan, while the Senate Appropriations Committee decided not to include a recommendation in its report. The differences between the two appropriations bills will be worked out by a conference committee after Congress reconvenes November 16. It is important that the Senate knows of the broad and strong support for the NIH proposal.

Senate phone numbers and e-mail addresses are available from a convenient look up service at www.senate.gov/general/contact_information/senators_cfm.cfm. Sample letters are available at http://www.taxpayeraccess.org/docs/advocacy_letters.doc .

MORE INFORMATION

- * ARL FAQ www.arl.org/info/publicaccess/ARLFAQ.html
- * NIH Public Access Policy page www.nih.gov/about/publicaccess/index.htm and FAQ www.nih.gov/about/publicaccess/publicaccess_QandA.htm
- * Alliance for Taxpayer Access web site www.taxpayeraccess.org

Contact me if you have questions or need additional information. And please share this message with other supporters of the NIH public access plan.

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