

National Research Council Reports on Sharing Publication-Related Data and Materials

A new National Research Council report specifies "the uniform principle for sharing integral data and materials expeditiously (UPSIDE), plus 5 supporting principles and 10 recommendations on sharing publication-related data and materials.

The report, *Sharing Publication-Related Data and Materials*, was produced by the Committee on Responsibilities of Authorship in the Biological Sciences, chaired by Thomas R. Cech, President, Howard Hughes Medical Institute. The publication is available to read online on the National Academies Press Web site at <http://books.nap.edu/openbook/0309088593/html/index.html>.

The Uniform Principle

"Community standards for sharing publication-related data and materials should flow from the general principle that the fundamental purpose of publication of scientific information is to move science forward. More specifically, the act of publishing is a *quid pro quo* in which authors receive credit and acknowledgment in exchange for disclosure of their scientific findings.

"An author's obligation is not only to release data and materials to enable others to verify or replicate published findings (as journals already implicitly or explicitly require) but also to provide them in a form on which other scientists can build with further research. All members of the scientific community—whether working in academia, government, or commercial enterprise—share responsibility for upholding community standards as equal participants in the publication system, and all should be equally able to derive benefit from it."

Supporting Principles

Principle 1. Authors should include in their publications the data, algorithms, or other information that are central or integral to the publications—whatever is necessary to support the major claims of

the paper and to enable someone skilled in the art to verify or replicate and build on the paper's claims.

Principle 2. If central or integral information cannot be included in a publication for practical reasons (for example, because a data set is too large), it should be made freely (without restriction on its use for research purposes and at no cost) and readily accessible through other means (for example, on-line). Moreover, when it is necessary to enable further research, central and integral information should be made available in a form that enables it to be manipulated, analyzed, and combined with other scientific data.

Principle 3. If publicly accessible repositories for data have been agreed on by a community of researchers and are in general use, the relevant data should be deposited in one of them by the time of publication.

Principle 4. Authors of scientific publications should anticipate which materials integral to their publications are likely to be requested and should state in the "Materials and Methods" section or elsewhere how to obtain them. If an MTA (material transfer agreement) is required, the URL of the Web site where the MTA can be viewed should be provided. If the authors do not have rights to distribute the material, they should supply contact information for their original source. A frequently requested reagent can be made reasonably available in the commercial market or by an author's laboratory for a modest fee to cover the costs of production, quality control, updating, and shipping.

Principle 5. If a material integral to a publication is patented, the provider of the material should make the material available under a license for research use.

Recommendations

1. The scientific community should continue to be involved in crafting

appropriate terms of any legislation that provides additional database protection.

2. It is appropriate for scientific reviewers of a paper submitted for publication to help to identify materials that are integral to the publication and likely to be requested by others and to point out cases in which authors need to provide additional information on obtaining them.

3. It is not acceptable for the provider of a publication-related material to demand an exclusive license to commercialize a new substance that a recipient makes with the provider's material or to require collaboration or coauthorship of future publications.

4. The merits of adopting a standard MTA should be examined closely by all institutions engaged in technology transfer, and efforts to streamline the process should be championed at the highest levels of universities, private research centers, and commercial enterprises.

5. As a best practice, participants in the publication process should commit to a 60-day limit to complete the negotiation of publication-related MTAs and transmit the requested materials or data.

6. Scientific journals should clearly and prominently state (in their instructions for authors and on their Web sites) their policies for distribution of publication-related materials, data, and other information. Policies for sharing materials should include requirements for depositing materials in an appropriate repository. Policies for data sharing should include requirements for deposition of complex data sets in appropriate databases for the sharing of software and algorithms integral to the findings being reported. The policies should also clearly state the consequences for authors who do not adhere to the policies and the procedure for registering complaints about noncompliance.

See NRC Report on page 7

Hum... what about cell-line repositories w/ HeLa integrity of the organization

NRC Report (from page 6)

7. Sponsors of research should clearly and prominently state their policies for distribution of publication-related materials and data by their grant or contract recipients or employees.

8. If an author does not comply with a request for data or materials in a reasonable time period (60 days), and the requestor has contacted the author to determine if extenuating circumstances (travel, sabbatical, or other reasons) may have caused the delay, it is acceptable for the requestor to contact the journal in which the paper was published. If that course of action is not successful in due course (another 30 days), the requestor may reasonably contact the author's university or other institution or the funder of the research in question for assistance. Those entities should have a policy and process in place for responding to such requests for assistance in obtaining publication-related data or materials.

9. Funding organizations should provide the recipients of research grants and contracts with the financial resources needed to support dissemination of publication-related data and materials.

10. Authors who have received data or materials from other investigators that have contributed to the work published should appropriately and publicly acknowledge such contributions.

ORI Listservs

See ORI Web Site

RRI Research Applications Almost Double in 2003

The number of grant applications submitted to the Research on Research Integrity (RRI) Program by the November 14, 2003, deadline was considerably higher than the number of applications submitted in any of the previous 3 years.

Fifty-three applications were received in the fourth round compared to 31 in the third, 30 in the second, and 25 in the first.

Journal Will Publish RRI Conference Papers

Five articles based on presentations made at the second Research Conference on Research Integrity held in November 2002 will be published in Volume 10 Issue 4, *Accountability in Research*.

Two papers present conceptual and methodological frameworks for the

2003 Annual Report Due March 1, 2004

Institutional officials will be asked to perform three distinct tasks when they file their 2003 Annual Report on Possible Research Misconduct using the new software developed for the ORI Assurance Program.

The tasks are (1) review and update the information already in the ORI assurance database about their institution; (2) submit their Annual Report, and (3) designate a unique password. Initially, the assigned IPF (Institutional Profile File) number serves as the User ID and password, and receipt of the new password will be a acknowledged. The program also will e-mail the User ID and password to the institutional official when the requested information is provided.

Institutional updates will be acknowledged on screen. Responses will be required in most data fields. In the two-part Annual Report, most officials will only see part one, which asks whether their institution has a research misconduct policy and whether any misconduct activity occurred. Part two asks for information on the misconduct activity. Receipt of the Annual Report will be acknowledged on screen.

Maximum direct costs were increased from \$100,000 to \$250,000 per year, and the project period was lengthened from 2 to 3 years in the fourth round.

The applications are expected to be reviewed in March or April 2004 and awards likely will be made in August 2004. The program currently supports 22 studies.

critical assessment of integrity in research. The remaining papers present different approaches to the study of specific aspects of integrity in research.

Development of Two Measures of Climate for Scientific Organizations, Blaine H. Gaddis, Whitney Helton-Fauth, Ginamarie Scott, Amber Shaffer, Shane Connelly, and Michael D. Mumford, proposes two specific measures for assessing integrity, based on traditional climate and career assessment measures.

A New Approach to Assessing Ethical Conduct in Scientific Work, Whitney Helton-Fauth, Blaine Gaddis, Ginamarie Scott, Michael Mumford, Lynn Devenport, Shane Connelly, and Ryan Brown, takes a combined empirical/theoretical approach to develop a taxonomy of ethical events across a broad range of scientific disciplines and to identify proximate factors that can influence research behavior.

The Importance of the Preservation of the Ethical Principle of Equipoise in the Design of Clinical Trials: Relative Impact of the Methodological Quality Domains on the Treatment Effect in Randomized Controlled Trials, Benjamin Djulbegovic, Mike Clarke and Alan Cantor, applies statistical analysis to information compiled from 136 randomized clinical trials to detect possible bias and the use of inappropriate methods.

Two Postal Surveys of Different Methods of Communicating Rejection to Authors Submitting to a General Medical Journal, Helen Barratt, Sara Schroter, Richard Smith, compares two ways for communicating rejection notices to authors, with the goal of improving communication, the quality of publications, and general attitudes toward responsible publication practices.

Plagiarism in Academia: Trends And Implications, Sheldon Gelman and Margaret Gibelman, employs content analysis of media reports to study issues and trends in plagiarism.