

scripts submitted for review. Access to the original data would permit a comprehensive review of both the data and the manuscript before a paper is accepted for publication. This procedure would place an increased responsibility on the reviewer not only to investigate the assumptions inherent in the analysis, but also to maintain confidentiality and voice any potential conflicts of interest.

On publication of a paper, the complete data set should be freely available to the scientific community. Depositing data in one or more databases, such as GenBank, a common practice now, might seem to provide an obvious solution. But it does not. For example, in the field of molecular evolution, single-taxon entries do not contain all the information in any intertaxon data set, such as gaps introduced into the sequences to improve the alignment. An option is to request the data directly from the authors, but this is often less than efficient and the information exchanged does not constitute an archive.

A solution would be to publish supporting data on some manifestation of the Internet, such as a dedicated World Wide Web site. This would enable data transfer to be complete and any assumptions of the authors to be tested immediately by other investigators.

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Lights, Camera . . . and Action!

Science should be congratulated on the special News Report about aspects of subtle issues in scientific conduct (23 June, pp. 1705–1718). In his editorial in the same issue (p. 1679), Floyd E. Bloom points out that “the real everyday conduct issues in the pursuit of science are much more intricate and complex than those of the famous misconduct cases. These tough questions are hammered out in a gray area.”

Many “gray” problems in scientific credit seem to result from a lack of a universally accepted credit system. For a paper with more than two authors, we often have to rely on track records, anecdotes, or hearsay at meetings to guess the relative contributions of each author. We might all benefit from a new convention of authorship, based on that for motion pictures.

In such a convention, the senior author

might be regarded as a scientific director and producer (who brings in money); the first author would be the executive director. All the authors could be identified by the actual experiments, analysis, or other services (including ideas or models) they have provided. For example, the authors of the paper “Whisker-related neuronal patterns fail to develop in the trigeminal brainstem nuclei of NMDAR1 knockout mice,” which appeared in *Cell* [76, 427 (1994)], instead of being given as “Yuqing Li, Reha S. Erzurumlu, Chong Chen, Sonal Jhaveri, and Susumu Tonegawa,” would be given as follows:

First author: Yuqing Li

Production of mutant mice: Yuqing Li

Histochemistry and anatomy: Reha S.

Erzurumlu, Sonal Jhaveri, Yuqing Li

Electrophysiology: Chong Chen

Senior author: Susumu Tonegawa

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Notes

1. I thank H. Hinds and Y. Li for comments.

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