

# Neuroscience Group Issues Ethical Guidelines for Communication of Science

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*CBE Views*

Those seeking guidance on proper behavior of authors, manuscript reviewers, and journal editors can now consult a new resource: "Responsible Conduct Regarding Scientific Communication"(Guidelines), issued by the Society for Neuroscience. The society, which has more than 25 000 members, endorsed these guidelines in November 1998.

Available on the World Wide Web at [www.sfn.org/guidelines](http://www.sfn.org/guidelines), this 28-page document has 6 sections: "Authors of Research Manuscripts", "Reviewers of Manuscripts", "Editors of Scientific Journals", "Abstracts for Presentations at Scientific Meetings", "Communications Outside the Scientific Literature", and "Dealing with Possible Scientific Misconduct". Each section contains 2 to 18 points, each followed by elaboration. (For a list of points, please see accompanying box.)

The content of the Guidelines ranges from well-accepted norms ("Plagiarism is unacceptable") to discussion of subjects previously less explored (such as whether editors should solicit manuscripts on particular pieces of research). It also includes guidance in a

subject on which opinion varies: the acceptability of presenting research findings in other media before doing so in a peer-reviewed journal. A number of passages emphasize the responsibility to communicate effectively.

For the Society for Neuroscience, which publishes *The Journal of Neuroscience*, informal communication of results electronically or in print "does not in and of itself preclude publication as a peer-reviewed journal article". However, the Guidelines also alert readers that some journal publishers take a different view.

The Guidelines advise editors generally not to solicit specific research manuscripts. "When editors solicit a particular manuscript for their journal", the Guidelines state, "they jeopardize their ability to provide—and to be seen as providing—the objective evaluation that is the core of their responsibility."

Also noted in the Guidelines is an exception to the principle that reviewers should not use nonpublic information from manuscripts they receive: "If information obtained during the review of a manuscript indicates that some of the reviewer's own research is unlikely to be successful, it would be ethical for the reviewer to discontinue the research."

The Guidelines may be especially helpful to new authors and new editors, and they could well be used in teaching scientific writing and editing and in mentoring research trainees. Authors and editors who are more experienced may also find the Guidelines of interest and use.

An ad hoc committee of the Society for Neuroscience began preparing the Guidelines in 1995. Others contributing to the guidelines included CBE members Beth A Fischer, Drummond Rennie, and Diane Sullenberger. The Guidelines incorporate material from the American Chemical Society's "Ethical Guidelines to Publication of Chemical Research" (*Chem Rev* 1995;95:11A-13A) and from the fifth edition of the "Uniform Requirements for Manuscripts Submitted to Biomedical Journals" (*JAMA* 1997;277:927-34).

Noting that scientific publishing is in a period of substantial change and that "no document such as this can ever be complete", the Society for Neuroscience invites comments on the Guidelines at any time. Comments can be addressed to Guidelines on Publishing, Society for Neuroscience, 11 Dupont Circle NW, Suite 500, Washington DC 20036, or [guidelines@sfn.org](mailto:guidelines@sfn.org).

## Summary of Points: Responsible Conduct Regarding Scientific Communication

### Authors of Research Manuscripts

- Authors are encouraged to have the first formal publication of their results be a peer-reviewed paper.
- Manuscripts should be prepared to maximize clarity and accuracy of communication.
- Authorship should be based on a substantial intellectual contribution.
- "Honorary authorship" is inconsistent with the definition of authorship.
- "Acknowledgements" provide an opportunity to acknowledge assistance that does not warrant authorship but does merit recognition.
- Financial contributions to the work being reported should be clearly acknowledged, as should any potential conflict of interest.
- Methods and materials should be described in sufficient detail to permit evaluation and replication.
- Unique and propagatable research materials used in studies being reported must be made available to qualified scientists for bona fide research purposes.
- Authors have an obligation to correct errors promptly.
- All components of a research article should be subjected to peer review.
- Plagiarism is unacceptable.
- Fabrication and falsification are unacceptable.
- All data should be presented to minimize the possibility of misinterpretation.
- Authors should not engage in fragmented or duplicate publication.
- Informal communication of results and ideas is encouraged.
- Authors should not make personal attacks on other researchers.
- Authors should not discuss with reviewers any aspect of a manuscript under evaluation.
- Accounts of a researcher's publication record should be accurate.

### **Reviewers of Manuscripts**

- Thorough scientific review is in the interest of the scientific community.
- A thorough review must include consideration of the ethical dimensions of a manuscript as well as its scientific merit.
- All scientists are encouraged to participate if possible when asked to review a manuscript.
- Anonymity of reviewers should be preserved unless otherwise stated in the guidelines for authors and for reviewers, or unless a reviewer requests disclosure.
- Reviewers should be chosen for their high qualifications and objectivity regarding a particular manuscript.
- Reviews should not contain harsh language or personal attacks.
- Reviews should be prompt as well as thorough.
- Reviewers must not use non-public information contained in a manuscript to advance their own research or financial interests.
- Information contained in a manuscript under review is confidential and must not be shared with others.

### **Editors of Scientific Journals**

- The sole responsibility for acceptance or rejection of a manuscript rests with the editor.
- Editors should generally grant the request of an author who asks that an individual be excluded from the review of a particular manuscript.
- Editors should establish a review process that minimizes bias.
- Editors generally should not solicit specific research manuscripts.
- Editors should subject all manuscripts of a given form to the same type of review.
- Editors should provide to the authors a written rationale for editorial decisions regarding a manuscript submitted for publication.
- Everyone involved in the editorial process must treat unpublished manuscripts as confidential documents.
- A limited amount of information regarding a manuscript accepted for publication may be disclosed by an editor before publication in print.
- Editors should correct errors in a manuscript if they are detected before publication or publish corrections if they are detected afterward.
- Editors should handle cases of alleged misconduct at the lowest possible organizational level, but usually must involve the institutions at which the research in question was performed.

### **Abstracts for Presentations at Scientific Meetings**

- Abstracts for scientific meetings should be prepared with care.
- In the absence of an editor, a specific individual should be designated to oversee the process of soliciting and publishing abstracts, and to deal with any problems that may arise.

### **Communications Outside the Scientific Literature**

- Research scientists are encouraged to communicate their ideas and results to the general public.
- Material prepared for the popular literature should be accurate and be given prior review by peers.
- Communication outside the scientific literature is not a substitute for publication within the scientific literature.

### **Dealing with Possible Scientific Misconduct**

- Accusations should be dealt with at the lowest organization level that can be effective.
- If, after an initial inquiry, the editor believes that the accusations may have merit and can not easily resolve the conflict, then the editor must notify the institutions at which the research was conducted.
- If an editor reports alleged misconduct to the institutions at which the research was performed, the editor should ask to be informed of the outcome of any inquiry or investigation.
- Allegations of scientific misconduct should be investigated promptly but with due attention to the rights of all individuals concerned.
- Professional societies may initiate corrective and/or disciplinary actions based on a formal finding of serious misconduct related to its publications or its members.

The above summary appears in a slightly different format in “Responsible Conduct Regarding Scientific Communication”. It is reproduced with permission of the Society for Neuroscience.