## Peer Review and Manuscript Management in Scientific Journals



Guidelines for Good Practice. By Irene Hames. Blackwell Publishing, Oxford 2007.
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In 1752, in order to prevent the publication of manuscripts of questionable quality in Philosophical Transactions, the Royal Society of London instituted the refereeing of papers by external experts (peers). Today, Ulrich's Periodicals Directory lists more than 22,000 peer-reviewed academic and scholarly journals. But despite the ubiquity of peer review, the editorial process from manuscript submission to peer review to publication is not very transparent to authors. With the publication of Peer Review and Manuscript Management in Scientific Journals, Irene Hames, who has been managing editor of The Plant Journal for 16 years, has provided the first handbook that describes in detail the review and editorial process for manuscripts submitted for publication, and includes a wealth of examples of good practice.

The book is primarily for editors of scientific journals, but it will be of great interest to authors as well, for it provides a look into the black box of the review process. Chapters 3 to 5 form the main core of the book and explain initial checks and assessment of a submitted manuscript by journal editors, external review by peers, and, finally, the decision-making process for acceptance or

rejection of a manuscript. In these chapters, Irene Hames also addresses a number of delicate matters. Can manuscripts be rejected even without external review? How can appropriate and independent reviewers be identified? How should an ideal report be structured, and what information should it contain? And what is the further process, if the reviewers' opinions as to publication worthiness are divided?

Chapter 2 is intended more for the publishing novice; it describes the peer review process using a flow chart (p. 10) and discusses points to consider when setting up a peer review system. Information and advice on moving from a paper-based to an on-line system for manuscript submission and review is provided in Chapter 6.

Peer review could not survive without the peers that take on the job for the benefit of the scientific community. Chapter 7 gives guidance on careful treatment of this valuable resource, the reviewers, and shows how to build a relationship between editors reviewers that will maintain reviewer loyalty. Chapter 8 reminds all parties involved in peer review—reviewers, editors, and authors-of their ethical responsibilities. Reviewers, for example, must disclose conflicts of interest openly in order to ensure that assessment is fair, and they are obligated to observe strict confidentiality. Editors, as "guardians of science", must be committed to upholding scientific ethics. They must ensure that the review process is independent, fair, and transparent and make their decisions according to scientific quality criteria alone. Authors must adhere strictly to all international usages concerning authorship, and follow the relevant rules ensuring good scientific practice.

The final chapter of the book describes many forms of violations of the rules of good scientific practice. Author misconduct, for example, can take the form of fabrication of data, manipulation of illustrations, multiple publication of the same material, or simultaneous submission of a manuscript to several journals. Reviewers must resist the temptation to profit from the research ideas and results of others, or to give themselves an advantage by, say, delaying a review. Editors must not misuse their position and should adhere to the code of conduct of the Committee on Publication Ethics (COPE).

As an overview for readers in a hurry, "The Golden Rules and the Peer Review Good Practice Checklist" listed in Appendix I are recommended. Appendix II provides useful examples of editorial letters, checklists for internal editorial use, and review forms, and Appendix III lists recommended websites of relevance to journal publishing.

The great merit of Irene Hames' handbook is that in its 274 pages it describes for the first time the peer review process as it is practiced by many scientific journals today, 250 years after it was introduced for *Philosophical Transactions*. In recent years, alternative models of what is called the traditional peer review process have been developed (for example, by electronic journals, which now number more than 2,300); these alternatives are described, unfortunately only briefly on 6 pages, in Appendix IV.

Hans-Dieter Daniel
Social Psychology and Research on
Higher Education, ETH Zürich
(Switzerland)

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