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Special eJIFCC issue on peer review and ethics in publication

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The Communications and Publications Division of the IFCC is pleased to present a special issue of the eJIFCC focused on peer review and ethics in publication. The special issue is based on a recent symposium held during the IFCC WorldLab Congress held in Istanbul, Turkey in June 2014, and includes 4 articles discussing various aspects of scientific peer review and ethics in publication. Peer review is an essential part of the academic writing process and has become an important feature of the scientific community. The process of peer review is used to establish the validity of a body of research or piece of scholarly work, and today, all high impact factor publications are vigorously peer reviewed. Through peer review, an author's work is evaluated by other notable individuals who are experts in that field of study. This process helps maintain the quality of scientific publications, because peer reviewers ensure that the research being presented is original, conclusions are supported by the appropriate experiments, and that the author has not made biased claims based on his/her own personal views. Peer review has become such a foundational pillar of the academic writing process that scientific hypotheses are generally no longer accepted, unless they have been published in a peer reviewed journal.

Despite the benefits of peer review, this process is not perfect, and there have been criticisms regarding the effectiveness of peer review in identifying errors and detecting plagiarism. Additionally, peer-review has been criticized for slowing down the publication process, and for limiting innovative thinking and creative research. With the exponential advancements in online resources that have occurred in recent years, there is now a need to consider the impact of less traditional publications, such as Open Access Journals, and to revisit standards for peer review, publication ethics and scientific writing in general, in light of these electronic developments.

The current issue of eJIFCC is focused on topics related to peer review and ethics in publication. The first article *"Peer review in scientific publications: benefits, critiques & a survival guide"* is a comprehensive guide to the peer review process. Here, Adeli and colleagues summarize the pros and cons of peer review, explain in detail the process of peer review with respect to scientific publications, and give tips for both authors and reviewers to successfully complete this process. In addition, this report highlights the advantages and disadvantages of the different types of peer review (open, double-blind or single-blind), and summarizes new initiatives to improve the peer review process.

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The second article, *"Ethics in online publications"* reviews the practice guidelines for ethics in science and in publication, and addresses author responsibilities with respect to publishing. Here, Peter Vervaart puts publication ethics into the context of the electronic age of publishing and open access journals, and highlights issues such as plagiarism and image manipulation in light of the rapidly growing number of journal articles published per year, and the increasing accessibility to scientific information.

The third article, *"Open access publishing in the electronic age"* by Gabor Kovacs, describes the growth of open access publishing as well as the various means of achieving "open access", including open access repositories (the green route to open access), open access journals (the gold route to open access), and platinum open access, which eliminates fees for both the author and the reader. In addition, Kovacs describes copyright licenses for open access, issues with predatory publishing in open access journals, and concludes with the current status of open access publishing in the field of laboratory medicine.

Finally, the article on *"How to write a scientific paper: practical guidelines"* addresses the deficit of appropriate writing experience in new scientific investigators, due to the fact that academic writing skills are no longer a focus of the scientific curriculum. Here, Delvin and colleagues give practical guidelines for writing scientific manuscripts, including a breakdown of the sections needed for a manuscript and what content should be covered under each heading. Furthermore, the authors review the different types of manuscripts, how to target an appropriate journal, and give tips for effective writing.

Taken together, these articles address the current issues with scientific publishing in an electronic era, and provide suggestions for how to publish peer-reviewed articles in high quality open-access journals. The contents of this special issue should benefit both experienced and novice authors of scientific articles, not only in laboratory medicine but also other areas of biological science and medicine.