

Letter

The Academic Paper

The two-part editorial series titled "The Academic Cup" (1, 2), written by the Editor of *Comparative Medicine (CM)*, not only was informative but was a challenge to academic administrators to amend the traditional job descriptions of professionals such as veterinarians. With the same theme of enhancing service, research, and scholarship in comparative medicine departments, allow us to focus on improving the representation of *CM* papers in science information databases. Although *CM* is excellent and one of the most influential journals among laboratory animal scientists, it is not as prominent in those databases. This may be because of its low journal impact factor (JIF), compared with that of major scientific publications. If so, the way to improve its JIF and have more exposure of its papers is to use techniques that other journals have been using that probably play a big role in boosting their citation frequencies and prestige.

It is well known that science journals are ranked according to a JIF, which is published annually in the Journal Citation Report (JCR), by the Institute for Scientific Information (ISI) in Philadelphia, Pa. The JIF is a ratio derived by dividing the number of times articles published in a given journal for the last two years have been cited (numerator) by the total number of articles published by that journal (denominator) in the same period (3). These citations are included on the basis of those appearing in the Science Citation Index (SCI). This bibliometric parameter was invented by Dr. Gerald E. Garfield in the 1960s (4), and is now widely used to evaluate and compare the quality of scientific journals (5). However, there is strong criticism to its use to gauge the relative importance of individual researchers, research programs, and journals (6-8).

In the ranking of journals by the ISI, few journals have consistently high JIF, whereas many have a low ratio. For example, here are recent JIFs of selected journals: *Annual Review of Biochemistry*, 40.8; *Nature*, 27.3; *Science*, 24.7; *Lancet*, 16.1; *Journal of Virology*, 5.8; *Veterinary Pathology*, 1.1; *Journal of the AVMA*, 0.9; *Journal of Medical Primatology*, 0.89; *CM*, (*Laboratory Animal Science*), 0.56; *Laboratory Animals*, 0.48; and *Indian Veterinary Journal*, 0.056 (see JCR 1997 [9]). There may be valid reasons for these differing numbers. One obvious reason is the size of the readership, which may be related to the frequency of citations. For example, the membership of the American Association for the Advancement of Science (AAAS), which owns the journal *Science*, is larger than that of the American Association for Laboratory Animal Science (AALAS). Library, institutional, and individual subscriptions to *Science* are, therefore, more numerous than are subscriptions to *CM*. In addition, *Science* readership is drawn from highly diverse scientific disciplines whereas *CM* has a more limited readership that is based principally in Comparative Medicine/Veterinary departments. Finally, the number of active researchers who read *Science* and as-

pire to "publish or perish" is considerably larger than those who read *CM*, and for better or worse, may not be under such pressure.

There are other reasons that may not be directly related to the size of the readership or the pressure to publish but are designed to maximize citations for the journal. To illustrate, in every issue of *Nature* journals, there is a "News & Views" (N&V) section that is designed to highlight research papers appearing in the journal. *Science* and *Current Opinion* journals have similar sections. The N&V articles are brief and easy to read synopses and are aimed at busy scientists, non-specialists, technicians, students, and the general public. The opportunity to cite the research paper almost immediately comes as an added bonus. Although *CM* editors must be credited for introducing important changes to the journal, such as *Forum* and *Opinion*, perhaps they should consider introducing a section that briefly discusses some or all of the *CM* papers without scientific jargon. Such an editorial addition may increase the editorial workload but can benefit the readers and increase the citation impact of the journal. A possible way to approach this would be to invite an expert on the subject of an accepted *CM* paper to write a brief overview and implications of the new findings, in an easy-to-understand style. The whole task could be accomplished by e-mail and should neither be a repeat of the abstract nor necessarily be subject to peer review.

Last but not least, all contributions to *CM*, even in letters to the editor, should include a short title and references. Some correspondence published in recent issues improperly referred to *CM* articles, thereby missing the chance for capture by the SCI. With implementation of these suggestions, we can collectively contribute to improving the exposure of the papers published in *CM*.

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