EDITORIAL: AUTHORSHIP AND THE ALLOCATION OF CREDIT

The issue of authorship order on a publication with more than one author was one of the discussion points I found intriguing during the "Manuscript Reviewers" workshop convened by the Directorate of Research and Graduate Studies (DRGS) in May 2016. Arising from that discourse, in particular the diverse interpretations of the author order list expressed therein, I am strongly suggesting that the DRGS, as sponsors of the Journal of Natural and Applied Sciences (JONAS), must develop "Authorship Guidelines". Authorship is foundational in the academia. The aphorism "Publish or Perish" is well known among academics across universities all over the world to mean the requirement in academia to continually publish academic work to sustain or further one's career. Understandably, universities' promotion structures are primarily focused on research output, that is, on peer-reviewed publications. In academia, peer-reviewed publications serve as a record of academic activity, the quality and quantity of which inform decisions regarding career advancement, research funding, and employment in academic institutions.

Successful publications bring attention to scholars and their sponsoring institutions, which can facilitate continued funding and an individual's progress through a chosen field. However, in this era of collaborations scientific publications produced by a single author are becoming rare. In a multiple authored academic publication, how much contribution recognition is accorded to individual authors is dependent on the name-ordering convention used. Contribution-based authorship has emerged as the preferred nameordering convention in a larger proportion of academic journals because of the critical role that credit allocation plays in academia. There two main alternatives of this scheme, namely (i) listing the authors in descending order of contribution to the publication; and (ii) the first and last author positions are considered the most important, wherein the first author is the one who did the most work, while the last author is the most senior and mentor. These two systems are being used in the University of Zambia (UNZA) depending on the discipline of the authors. What was apparent in the discussion at the DRGS workshop was that schools like Engineering and Mines tended to use the former while schools such as Medicine and Veterinary Medicine used the later alternative. In both approaches, though, being first author is a big deal. In general, the person who made the primary contribution to or taken the lead in writing the publication is entitled to be first author. Equally, a student should be listed as first author on any multiple authored publications that substantially derives from the student's dissertation or thesis.

Clearly, knowing the way in which authorship order has been determined can be important for proper credit assignment. Some journals require an "author contributions" section, wherein the individual contributions of each of the authors are specified. The International Committee of Medical Journal Editors (ICMJE) offers *Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals*, which is a useful resource on authorship. These would be benchmarked as we strive to improve the JONAS.

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