

Authors-Contributors in Biological Sciences: Who Takes Responsibility for What? How Does the Reader Know?

Moderator:

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Speaker:

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Most readers of CBE Views have wrestled with the question of authorship often. As the moderator of this session, Bruce Dancik, made perfectly clear, the problem of rightful authorship is becoming more prevalent as the average number of authors per paper increases. The “Uniform Requirements for Manuscripts Submitted to Biomedical Journals” are not universally followed or known. The following 4 definitions of authorship are popular, and most editors require 2 and some even 3 elements of participation:

- conception of experiment
- collection of data
- analysis and interpretation of data
- writing of manuscript

Several recent papers have suggested using a list of contributors instead of authors. Everyone would be listed, and full disclosure of what they each contributed would be included. Authors would be listed in order of importance of their contribution, and a subset of the contributors would be guarantors who would be responsible for the paper as a whole.

“Much of the process of science is driven by graduate students.” So stated

James P Shaver, who presented the academic angle on authorship. The major concern of graduate students is that they get credit for their research and contributions. But faculty members want to be recognized also. Conflicts arise when a student does not prepare a manuscript in a timely manner, a faculty member writes it and puts himself or herself down as first author, and the student complains. Shaver explained that Utah State University now has a written agreement to be

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signed by the graduate student and the faculty member regarding timelines for publication of research. Prior negotiation between student and professor is stressed.

The audience was divided into 3 groups, each with a discussion leader: Kayleen Niyo, managing scientific editor for the Council for Agricultural Science and Technology; Lee Miller, managing editor of Conservation Ecology; and Thor Kommedahl, professor emeritus at the University of Minnesota. They led the groups in addressing the following questions:

1. What are the stakes in keeping the byline system for assignment of authorship as it is?
2. What are the stakes in changing the conventions of publishing the assignment of authorship?
3. What values should underlie authorship?
4. Which party or parties can best and should establish fair, effective “rules”, guidelines, or conventions regarding assignment of authorship? What makes that party (or

parties) the right one(s)?

5. How is it possible to educate trainees and faculty about values underlying authorship once we decide what those values are?
6. What convention for acknowledging credit and accountability do you propose to use to resolve current issues regarding assignment of authorship?

Widely varied opinions were disclosed, from leaving the authorship system as it is to asking authors to write out their own categories of authorship. It was almost unanimous that some guidelines are needed, but agreement ended there. Many supported having a guarantor on every paper. Some of the journals that were represented already ask authors to state the contribution of each author. The editor-in-chief of one journal represented set up categories of authorship. The main question emerging from all the groups was what system to use.

Variations of “contributor not author” bylines might work, but who would set guidelines, and how many would follow them? One group concluded that professional societies should drive change at the universities and relate to them what authorship involves. Another group—which included a publisher, an author’s editor, an author, and an editor—concluded that collaborative research is so common now that all involved should receive credit.

In conclusion, most participants at the session agreed that defining authorship in the basic and applied sciences has become more difficult and that guidelines of authorship would be helpful to authors and editors. However, the variance of opinion as to who should compose the guidelines and which guidelines to follow punctuates the difficulty of compromise in solving this ethical dilemma. ■