

Replacing a First Author on a Second Submission

David is a new postdoc in Dr. Goliath's lab. Upon David's arrival to the lab, Dr. Goliath assigned him a few experiments to firm up some results of a paper that had been rejected by a journal. These experiments had not been performed because the technician who was working on the project and was the rejected paper's first author had since left the lab. David was given a copy of the (rejected) manuscript to review and to assess what needed to be done for a second submission. After reading the paper, David felt that the quality of the writing was poor and that, along with including the results from the control experiments Dr. Goliath asked him to do, the manuscript needed to be completely re-written.

David expressed all this to Dr. Goliath, who agreed that David should take ownership of the paper and improve it. Upon completing and adding the results of the control experiments and then re-writing the original manuscript entirely, David re-submitted the paper without consulting the original author who had performed the bulk of the work of the original manuscript. The reviewers gave enthusiastic reviews of the re-submission and the paper was accepted with minor revisions

Was it appropriate that David replaced the original author as first author? Was David in the wrong to have totally re-written the manuscript without the permission of the technician who had written the original (rejected) paper prior to leaving the lab? Should the technician have been informed about the changes to the manuscript prior to the new submission? Should the technician have been invited to comment on or contribute to the new submission?

Expert Opinion

A key source of ethical guidance in resolving this dilemma is the opinion of the International Committee of Medical Journal Editors (ICMJE), which recommends that:

Authorship credit should be based on 1) substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; 2) drafting the article or revising it critically for important intellectual content; and 3) final approval of the version to be published. Authors should meet conditions 1, 2, and 3 ... Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content.^{1, p. 6}

Suppose that the original, lab technician author found out about the successful re-submission of the paper and complains that he is no longer first author. (Indeed, we are not told whether he was retained as an author at all, but let us assume he was.) Using the ICMJE's authorship criteria, how might an ad hoc committee (or reasonable facsimile) resolve such a complaint?

Certainly, a key issue in deliberating over who should be first author must revolve around the re-submission's "intellectual content." We are told that David performed new control experiments, whose findings he included in the re-submission, and that David also completely re-wrote the original paper. But if this is the extent of David's work, then the lab technician seems to be able to make a strong claim to be retained as first author—that is, if his original "contribution," i.e., the experimental design, and most of the data and their analyses

and interpretation, were substantially if not “phraseologically” retained in the re-submission and constituted the bulk of the re-submission’s findings.

To appreciate this, consider the following hypothetical situation: Instead of assigning the do-over of the paper to David, suppose Dr. Goliath has a graduate student perform the new control experiments. Upon collecting that data, Goliath then hires a ghost writer/copy editor (who is not a professional scientist) and says, “Here’s a rejected manuscript with some new data. I want you to re-write this paper as best you can and incorporate the data from these new experiments.” Now, it is quite possible that this copy editor could produce a paper very similar if not identical to David’s, but we would probably hesitate giving him an authorship credit at all, much less assigning him first authorship.

Consequently, a crucial question that an ethical review of this case would have to address is: How different and elaborate must the *intellectual content* of David’s resubmission be from the original in order for David to replace the lab technician as first author? Did the overall conception and design of the original paper’s experimental approach change significantly with the re-submission? Were the data analyzed and interpreted differently? Were new implications of the data presented?

The outcome of this analysis would answer the above question about the propriety of David’s replacing the original author as a new first author. As to the question, “Was David in the wrong to have totally re-written the manuscript *without the permission of the technician* who had written the original (rejected) paper prior to leaving the lab?” we say, “Probably not.” *Considered as intellectual property*, the original, rejected paper and its ideas belong and have always belonged to the lab, so that David doesn’t need the technician’s permission to revisit the original paper.² This is a very important point if the University would ever wish to patent any aspects of the materials of the original paper (regardless of whether it does or doesn’t appear in a professional journal). The University owns and has always owned the paper’s *ideas and discoveries* such that had the original paper been submitted and been accepted but the lab technician had left the lab for a new position in the meantime, he or she would have to reveal the fact that the research was conducted at the University while he was employed there, and not give the erroneous impression that his new employer—whose name would certainly appear on the paper as his current employer—owns the paper’s content as intellectual property. In sum, the University, through Dr. Goliath, seems certainly within its rights to re-assign the rejected paper to someone else and to have that individual revise the paper accordingly.

However, we strongly believe that the technician should have been invited to respond to the revision before it was re-submitted—both to respond to its content as well as to his losing first-authorship. Indeed, it seems remarkably unprofessional as well as a violation of the ICMJE’s guidelines to place the tech’s name on the re-submission—if that in fact happened—without his having reviewed and approved it. A pre-submission communication from David to the technician should have informed him of the revision, explained why he (David) deserves first authorship, and invite the technician to contribute to the revision. As occurs so often in these kinds of cases, treating an original research contributor as though he or she no longer exists explains how so many of these disputes originate.

So, let us conclude by returning to the issue of assessing the scope and content of David’s revision. If we imagine an authorial continuum whose one pole is a vastly re-written but nevertheless relatively intact preservation of the lab technician’s original intellectual

contribution(s) with the other pole of the continuum a completely new version of the original paper's experimental design, data, and findings, then first authorship should be determined according to which pole on that authorial continuum (represented by David at one end and the lab technician at the other) the resubmission's content veers and lands. As this dilemma might play out, however, it would be easy to imagine the lab technician's ire should he read the resubmission's eventual publication and exclaim, "But these are mostly my ideas and data! And I was never contacted!" Again, some thoughtful communications among David, Dr. Goliath, and the lab technician prior to the revision's being re-submitted is the preferable approach to take.

References:

1. International Committee of Medical Journal Editors. Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication. Updated October 2007. Available at <http://www.icmje.org>.
2. Shamoo A, Resnik D. *Responsible Conduct of Research*. Oxford, UK: Oxford University Press, 2003:20-21 and 119-138.

Also see:

<http://jama.ama-assn.org/misc/ifora.dtl>. *JAMA* authorship guidelines

http://www.nature.com/authors/editorial_policies/authorship.html. *Nature* authorship guidelines

http://www.sciencemag.org/about/authors/prep/gen_info.dtl. *Science* authorship guidelines

<http://www.cell.com/misc/page?page=authors>. *Cell* authorship guidelines