Good Ideas Have Many Fathers

Dear Reader,

Looking at the last 100 published manuscripts in the Journal of Adhesive Dentistry (2003 to 2005), one notices that the median number of authors is 4 (mean: 4.3). Yes, modern research is teamwork; however, I wonder if four and more authors can all substantially contribute to a publication. Of course, one author may have the idea, the other may process the specimens, and the last one performs the analysis. Maybe the input of the statistician was crucial. But then? Is it necessary to add the name of the department's chairman? Does the colleague who did the proofreading belong among the authors? Or do we need to add consultants in any capacity to the list of authors as well? Furthermore, during my years of experience in the scientific publishing world, I have witnessed too many fights over the sequence of the authors. The first one named is the one who gets the most credit. But how is it farther down the line? Is the last one the least significant or (as many see it) the senior author?

Many questions and problems are aggravated by the fact that, in this age of impact factors – which are important not only for individual carriers, but also for funding the departments – the "objective" measurement of scientific performance has become of all-consuming importance. The temptation to just add authors in order to acquire advantages is great and growing at a time where the slogan "publish or perish" has taken on nearly literal meaning.

In the Editorial Board and among editors, we have held discussions along these lines and have tried to come up with solutions. We intentionally did not limit the number of authors, because we feel that by printing the title and function of every author, we help to create transparency. I am a strong believer in liberalism. Therefore, I will not push for more regulations. However, I will remind senior authors and advanced researchers who supervise the work of younger scientists to uphold their ethical responsibility and give credit and honor to whom it is due. Under my auspices as a chairman and supervisor of research projects, the following rules have worked very well in conflict situations:

• The idea came from the student, the supervisor just provided assistence with the experimental design and the methodology of scientific writing, the student did

the experiments almost alone, and she or he produced the first draft of the paper: the student is the first and the only author. At the beginning of his or her career, a scientist usually does not have a fully matured idea in mind. A supervisor whose only contribution consists in pushing the student to come up with an idea and then conduct the experiment as well is abusing his superior position if he automatically names himself as last author simply because he is chairman.

• The idea and experimental design came from the supervisor, the student did the experiments, the student got his degree based on the work, but the supervisor wrote the paper: first author, supervisor; second author, student.

Of course, real life lies somewhere between these extremes. The main person responsible for the research project must discuss the positioning of the authors with his or her colleagues and students. I think that other people involved in proofreading, checking experiments, etc, need not appear on the list of authors, unless their contribution is very substantial. It should also not be forgotten that there is a section in a manuscript called "Acknowledgments" for thanking and recognizing those who participated in a supporting capacity.

Some universities have started to set up rules for ethical publishing. When students are involved, it would be a wise recommendation for senior scientists and chairmen to set the rules for publication even before the research has started, in order to avoid future problems. My wish is that universities and other supporters of research would begin to evaluate research quality with better criteria than counting publications, positions in the author lists, and impact points.

We scientists in leading positions need to remember that our most important duty is to promote young scientists, because they are the guarantee for a bright scientific future.

Sincerely yours,

Professor Jean-François Roulet