We recently wrote about the case of a young researcher who was forced to retract a paper when her former boss, in whose laboratory the work was performed, objected to having been excluded from the article. Although the scientist did thank the lab head in an acknowledgement, he evidently felt that was insufficient credit and pushed her to request that the journal pull the article, citing a misinterpretation over the ownership of data.

The case – more about it at http://bit.ly/XpJ0me – has raised a few perennial questions: What’s the best way to acknowledge the work of colleagues who might have helped provide intellectual background for a particular study but who did not participate in the collection of the data or the preparation of the manuscript? And what of the lab head, whose ability to bring in money keeps the lights on and the rats fed?

Excluding inappropriate authors
For the publishing industry, the policies regarding authorship generally are reasonably clear. Consider Elsevier, whose 2,000-odd journals carry the following rules:

“Authorship should be limited to those who have made a significant contribution to the conception, design, execution, or interpretation of the reported study. All those who have made significant contributions should be listed as co-authors. Where there are others who have participated in certain substantive aspects of the research project, they should be acknowledged or listed as contributors.

The corresponding author should ensure that all appropriate co-authors and no inappropriate co-authors are included on the paper, and that all co-authors have seen and approved the final version of the paper and have agreed to its submission for publication.”

The International Committee of Medical Journal Editors (ICMJE) has similar stipulations:

“Authorship credit should be based on 1) substantial contributions to conception and design, 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.”

No gift authors, please
But the ICMJE takes it a step further, declaring that: “Acquisition of funding, collection of data, or general supervision of the research group alone does not constitute authorship.”

Are such authors simply “gift authors”? The Committee on Publication Ethics, which offers its own “How to handle authorship disputes: a guide for new researchers”, defines gift authors this way:

“People who are listed as authors but who did not make a significant contribution to the research and therefore do not fulfil the ICMJE criteria. These are often senior figures (e.g. heads of department) whose names are added to curry favour (or because it is expected). Another type of gift author is a colleague whose name is added on the understanding that s/he will do the same for you, regardless of your contribution to his/her research, but simply to swell your publication lists.”

A mockery of authorship
These problems are not unique to the life sciences, by the way. A recent working paper by Stan Liebowitz at the University of Texas in Dallas – available at http://bit.ly/XFHU2B – notes that “the reward structure used in Economics for at least the last thirty years only incompletely prorates authorship credit, which should lead to inefficiently high levels of coauthorship”. That seems to benefit senior economists more than anyone else. “Fictitious authorship, although of dubious ethical status, has the perverse impact of improving the efficiency of authorship when proration is incomplete,” Liebowitz writes. “Grossly excessive coauthorship, which threatens to make a mockery of authorship itself in several other academic disciplines, may be the path down which Economics is headed if the reward structure is not altered.”

(We’ve also seen a case of “ghost authorship”, in which a scientist seems to have made up a co-author. We still don’t understand how this benefited the researcher, who has now had six papers retracted.)

No benefits from ghosts
Of course, the Elsevier and ICMJE statements don’t define “substantial” and “significant”. And in the end, it’s into these gaps that disputes over authorship will inevitably fall.

At the very least, we’d suggest heeding COPE’s advice to “start discussing authorship when you plan your research” and “decide authorship before you start each article”. That might have saved the student in the case we described some grief.

Adam Marcus and Ivan Oransky
(The authors run the blog Retraction Watch: http://retractionwatch.com)