

ABRF Recommended Guidelines for Authorship on Manuscripts

Personnel in core facilities provide essential services for their users and it is important to recognize their contributions to the scientific advancement of the projects. The type of recognition that is most appropriate may be different for individual projects, depending on the contribution that core facility personnel provides. Under what conditions is co-authorship warranted? When is an acknowledgment most appropriate? What if a user/collaborator refuses to acknowledge core personnel? And more importantly, how to handle situations when you feel it is warranted, but not offered (or offered when you feel it is not warranted)? Below we offer guidelines that we hope will be useful for establishing your own solutions and provide recommendations for more specific situations.

Core facilities must charge for services rendered according to cost accounting practices set up at each institution. Charging for services does not preclude authorship on manuscripts provided the Core laboratory individual has contributed to the research in a substantial way. If authorship is anticipated, it is preferably established at the beginning of the project so that both the customer and the Core researcher are cognizant of each other's criteria.

Important reasons for acknowledging contributions from core facilities in publications, by co-authorship or by formal mention in the acknowledgments section, include:

1. Core facility personnel are scientists. When they make a substantial intellectual and/or experimental contribution to a publication they deserve to be acknowledged just as any other co-author.
2. The existence of core facilities depends in part on proper acknowledgment in publications. This is an important metric of the value of most core facilities. Proper acknowledgment of core facilities enables them to obtain financial and other support so that they may continue to provide their essential services in the best ways possible. It also helps core personnel to advance in their careers, adding to the overall health of the core facility.

The ABRF recommendation was previously published in Angeletti et al. in 1999 (FASEB Journal, 13:595), "Intellectual interactions between resource and research scientists are essential to the success of each project. When this success results in publication, a citation in the acknowledgments section of a manuscript may be appropriate for routine analysis. However, contributions from resource scientists that involve novel resource laboratory work and insight, experimental design, or advanced data analysis that make a publication possible or significantly enhance its value require co-authorship as the appropriate acknowledgment."

Activities for which authorship are recommended:

1. Author should make substantive contributions to the project
 - Conception, design of project, critical input, or original ideas
 - Acquisition of data, analysis and interpretation, beyond routine practices
 - Draft the article or revise it critically for intellectual content
 - Write a portion of the paper (not just materials and methods section)
 - Intellectual contribution
 - Final authority for the approval of article
2. Each author should have participated enough to accept responsibility for the content of the manuscript

The following activities do not represent intellectual contributions to a project and would not constitute authorship:

- Providing funding (department chair who has no intellectual input)
- Collection of data (technical skill but not involved in interpretation of data)
- General supervision of research group, but no intellectual input into the project

All contributors that do not meet the criteria of authorship should be recognized in the acknowledgements section, for example:

- Paid technical help
- Writing assistance
- Financial and material support
- Scientific advice

Two examples are pertinent: (from Robert A. Day: How to Write and Publish a Scientific Paper, 5th Edition)

Example 1: Scientist A designs the experiments, and tells Technician B exactly how to do the experiments. If the experiments work and a new discovery is made and a manuscript results, Scientist A is the sole author and Technician B is recognized in the acknowledgements section.

Example 2: Scientist A designs the experiments, Technician B carries them out but they do not work. Technician B suggests some changes to the protocol, the experiments then work because of the changes and a discovery results. Scientist A and Technician B are now both authors.

Useful Practices for Core Laboratories

- ◇ Have friendly and collegial rapport with users
- ◇ Have open communication with investigators
- ◇ Always consider including the PI prior to beginning an experiment that goes beyond standard services and which may include a substantial intellectual involvement. Do discuss all the possible outcomes for the experiment.
- ◇ Be up front about payment and intellectual contribution to project – this helps clarify expectations on both sides
- ◇ Post core authorship policies prominently on the website of a core, including when a core should be acknowledged and when core personnel should be included as authors
- ◇ Offer to read drafts of manuscripts to ensure the technical aspects are sound before going to press
- ◇ Remind PIs to cite core facility in grants and in papers using data from a core

Supplementary materials are available at the ABRF website:

<http://www.abrf.org/index.cfm/page/resources/Authorship.htm#supplementary>

ABRF recommends the readers to also consult the guidelines established by the International Committee of Medical Journal Editors and similar organizations including Huth (Huth, E. J.

[1986] Guidelines on Authorship of Medical Papers, *Annals Int. Med.* **104**: 269-274) and Bailey (Bailey, B. J. [2001] What Is an Author? *Otolaryngol. Head Neck Surg.* **124**:2-3).