

Ethical Conduct of Science Case Study #1

You graduated from MTSU with a BS in Biology. You applied to Vanderbilt for a position as a research assistant and have landed a job as a lab technician in Dr. Takahashi's lab. He immediately assigns you to work with a graduate student and a post-doctoral fellow on a project from one of his grants. The graduate student shows you how to perform several different types of lab tests. The post-doctoral fellow meets with you every morning to review what you did yesterday, collect the data you gathered and direct you regarding what tests to run today. You are not required to attend lab meetings like the students and fellows in the lab, although you are invited to go. You go to one of them and are overwhelmed by the lengthy discussions of data, data analyses and theoretical implications of the lab work. Clearly, you don't know enough about this research to make a significant contribution to the meeting at this point, so you don't go again. After you've been there for about 10 months, Dr. Takahashi hands you a manuscript and says, "We're about to submit this paper for publication. I'd like for you to look it over for accuracy and typographical errors before we put it in the mail tomorrow." Upon reading the manuscript, you discover that the data were all from the tests that you performed during your first 8 months in the lab. In fact, you recognize all the data; clearly no one else actually ran any of the tests included in this paper. When you look at the title page, there are 3 authors listed, the post-doctoral fellow, the graduate student and Dr. Takahashi. Upon further examination, there isn't even a mention of your contribution in the acknowledgements section, just a list of grant numbers and sources of funding. What should you do? What do you think you would do?

Assignment

Get in a group of 4-5 people. Use the worksheet to guide you in discussing the case above. As a group, outline 5 different courses of action that are possible (not necessarily what you would do). After you have listed at least 5 different courses of action, read the accompanying generally accepted standard of conduct for authorship on a paper. Work through the problem-solving method that you just heard about in class as a group. Be sure to apply the accepted standard of conduct for a research scientist to this situation. At the end of the exercise, take a vote for an appropriate course of action. Give the vote tally, and list all majority and minority opinions for the proper course of action. Describe the rationales given by group members for choosing each of the courses of action that received a vote or votes.

References

1. Croll RP. The noncontributing author: an issue of credit and responsibility. *Perspectives in Biology and Medicine* 27(3):401-7, 1984.
2. Bird SJ and Houseman DE. Conducting, reporting, and funding research. In, *Research Ethics: A Reader*, edited by Elliott D and Stern JE. Hanover, NH: University Press of New England, 1997. (available at MTSU as an E-book from NetLibrary on the web)
3. <http://www.nig.gov/signs/bioethics>
4. CBE Style Manual

Worksheet Accompanying Case Study #1

1. List at least 5 possible courses of action open to you.
2. Read the following, and apply these statements to your analysis of the case.
“In general, authors are assumed to be all those who made a significant scientific contribution to the original, new information that is the core of the paper. It is assumed that it will be an intellectual contribution, and will reflect active involvement in the design and execution of experiments.” (Ref. #2, p 129) See additional references if you wish further information after class.
3. Recognize and state the ethical problem or problems.
4. Be sure to identify relevant facts. Do not assume additional information. (*Nothing to fill out here.*)
5. Formulate alternative courses of action (*just add to list above if new options come up at this point*). Continue to check facts as you consider options.
6. Assess alternatives, on ethical grounds using the standard of conduct shown above, and on grounds of feasibility (i.e. can you really do that?). (*Just do this in discussion among the group. Nothing required on worksheet.*)
7. With discussion among yourselves, voting if you cannot reach a consensus, list what your group believes is the best available option or options available to you in Case Study #1. You may list one or more options. Please put the number of students identifying each listed option as their best choice in parentheses following that option. Use the back of the sheet if necessary.
8. Explain the rationale for their choice given by the students choosing each listed option above. Use the back of the sheet if necessary.
9. List the students in your group, and turn in your sheets to me before leaving lab today.