Instructors:
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Objectives: Students will develop an understanding of moral reasoning in issues related to the collection of biochemical data, publishing, and grant writing. Students will gain exposure to biases that arise in the execution of research and in the activities related to research. The presentation of actual case-studies will provide relevant examples for discussion. Through lectures, presentations, and discussions, students will obtain a framework for principled decision making applicable to their research-oriented scientific endeavors. This is critical for our students who are beginning their research careers in the biological sciences, as it is vital to the pursuit of their discipline.

Evaluation: The course will consist primarily of lectures, discussions, outside reading, and student presentations. The material is not amenable to standard format exams. Grades will be based on student attendance (20%), participation in the discussions (30%) and a 20-30 min. oral presentation on an actual scientific misconduct case (50%). Attendance is essential. Due of the nature of the course, the absence of exams, and the importance of student participation in class discussion, regular attendance at class sessions is critical. Therefore, student attendance will be recorded. Students must inform me ahead of time if they must miss class, and absences may result in additional assignments or reduced grade.

Text: On Being a Scientists, Online resources (see below), handouts, news articles.

Course schedule: (updated to reflect actual coverage of material)

Jan. 23:
Discussion of course content, examples of misconduct

Jan. 30:
Examples of misconduct, con’t.
Acceptable data “cleaning”
Plagiarism

Feb 6:
Plagiarism, con’t.
RCR training: Policies and education
Scientific misconduct – Why?
Can ethics be taught to adults?
Errors and negligence
Discussion of “Truth and Consequences” (Science report on the Goodwin case)

Feb. 13:
How to handle suspicions of misconduct
Values in science; the importance of skepticism
Discussion of The Moral Instinct, NY Times article by Steven Pinker
Laboratory notebooks
Feb. 20: Bernie Rollin
   Read "Reasons Scientists Avoid Thinking about Ethics"

Feb 23 (Monday, 10-noon, room 123)
   Publishing
   Authorship
   Acknowledgements
   Citations
   Discussion of The Double Blind Gaze by Steven Bratmann

Presentation topics due

Feb. 27: BC and CMB Graduate Recruitment Weekend begins (no classes)

Student presentations begin.
The class will split into two groups, Biochemistry students and CMB students. I will meet with the BC students and Paul Laybourn will meet with CMB students.

March 6:  
   Student presentations.

March 13:  
   Student presentations.

Resources:
Online:
Bioethics resources: Tutorials, case studies and resources:
Moral reasoning:
http://www.indiana.edu/~poynter/mr-main.html
Books:
On Being A Scientist: Responsible Conduct In Research (book online)
http://www.nap.edu/readingroom/books/obas/
Responsible Conduct of Research
Adil E. Shamoo; paperback.
Research Ethics: A Reader
Deni Elliott and Judy E. Stern, Editors; paperback.