Responsible Conduct of Research Training at UCLA: Implementation of a Campus Wide Plan

Goals:

• To promote awareness of ethical standards in all areas of research and Scholarship at UCLA.
• To develop a set of unifying principles for the education/training of students and faculty in the ethical conduct of research and scholarship.
• To meet and exceed the requirements set by National Institutes of Health and the National Science Foundation.
• To create common-good resources, including definitions, training materials and web based learning tools for better training of students, postdoctoral scholars and faculty in ethical standards for research and scholarship.

Responsible conduct of research (RCR) and scholarship is a defining concept of a research university. A sense of accepted ethical standards is an essential component of education and community standards. While all education must strive to impart a rational set of rules for behavior, graduate and post-doctoral training is a time at which faculty, both individually and collectively, have a particular obligation to impart training in ethical standards accepted within academic and community life, and to include in that training specific rules of behavior appropriate to their particular discipline(s).

A growing number of programs now require formal instruction in RCR, including the National Institutes of Health (NIH) and the National Science Foundation (NSF). Because of funding mandates, students and post-doctoral scholars who are supported by the NIH or the NSF¹ must receive at least 8 hours of RCR training every 4 years, and at least once per stage (i.e. as an undergraduate, graduate student and as a post-doctoral fellow or scholar). The NIH and NSF training materials are not entirely appropriate for students and postdoctoral scholars who fall outside of the disciplines covered by these funding agencies.

The RCR training materials produced by the UCLA Office of the Vice Chancellor for Research are designed for disciplines that have not been mandated to participate in responsible conduct of research training and yet participate in scholarly activities that would benefit from formal didactic training in RCR that can be individualized by discipline.

¹ The following NIH funding mechanisms are included: D43, D71, F05, F30, F31, F32, F33, F34, F37, F38, K01, K02, K05, K07, K08, K12, K18, K22, K23, K24, K25, K26, K30, K99/R00, KL1, KL2, R25, R36, T15, T32, T34, T35, T36, T37, T90/R90, TL1, TU2, and U2R. This note also applies to any other NIH-funded programs supporting research training, career development, or research education that require instruction in responsible conduct of research as stated in the relevant funding opportunity announcements.” Likewise, the National Science Foundation has instituted mandatory RCR training for all trainees supported by an NSF grant. Because of a mandatory report-back to the NSF, these individuals must complete the online training through the UCLA Learning Management System (LMS).
Included is a template for Responsible Conduct Materials that can be modified as necessary for the following disciplines:

- Arts and Architecture
- Education and Information Studies
- Engineering (non-NSF supported students)
- Humanities
- Management
- Nursing (non-NIH training grant supported students)
- Physical Science (non-NSF supported students)
- Public Affairs
- Public Health (non-NIH training grant supported students)
- Social Science
- Theater, Film and Television

This training template covers ten areas for training that need to be taken into consideration when individuals are conducting research.

- Mentor/Trainee Responsibilities
- Data Acquisition, Management, Sharing, and Ownership
  - Including intellectual property
- Publication Practices and Responsible Authorship
- Peer Review
- Collaborative Science/Research
- Research Ethics and the Role of the Scientist/Researcher
- Research Misconduct

Additional tangential areas that may apply to certain individuals depending on their field of research include:

- Human Subjects
- Animal Welfare
- Conflict of Interest and Conflict of Commitment

These ten areas form the body of responsible conduct of research from the NIH and NSF perspective. While not all ten areas apply to individuals conducting research in other fields, the first seven listed topics apply to all researchers regardless of their field of research. The training is a combination of didactic slides and case studies in order to maximize student interaction. The notes sections of the slides contain suggested additional comments for the facilitator as well as suggested answers to the case studies. To encourage interaction in the case studies, it is recommended that the facilitator have a student read the case studies aloud. Additional strategies can be utilized such as providing incentives for students who offer answers.