UCSF Responsible Conduct of Research Program for Postdoctoral Scientists (RCR-PS)

**Dates:** January 21st—February 24th, 2014

**Time:** 3:30-5pm*
- The first session meets from 3-5pm

*Please plan to arrive five minutes early to sign the attendance sheet, address any administrative concerns, and to silence and stow away electronic devices.

**Location:** UCSF Mission Bay Campus
1/21: Genentech Hall N114
1/28: Genentech Hall N114
2/4: Helen Diller 160
2/11: Genentech Hall N114
2/18: Genentech Hall N114
2/24*: Rock Hall Auditorium 102
*This is the only Monday session; all other sessions are on Tuesdays

**Program Coordinator**
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The UCSF Responsible Conduct of Research Program for Postdoctoral Scientists (RCR-PS) is a thought-provoking, six-session course designed to satisfy NIH and NSF requirements for training in ethics and the responsible conduct of research. The winter term marks the first inaugural training program of its kind at UCSF.

Unique to the basic science postdoctoral training experience, this program addresses contemporary debates at the interface of biomedical science and society with attention to the tools and resources requisite of successful (and ethical) research careers. Each week, we will meet with a community of UCSF scientists to discuss issues such as:

- Ethical Implications of Scientific Misconduct
- Scientific Professionalism and Social Responsibility
- Mentorship and Collaborative Science
- The University-Industry Interface and Scientific Entrepreneurship (Conflicts of Interest)
- Data Management, Sharing, and Ownership
- Responsible Authorship, Publication, and Peer Review
Course Requirements

I. Attendance
To pass the course, participants must attend all six sessions and write one ethics blog per week to post on the course website. In the unforeseeable event of a missed session, please email the program coordinator to schedule the submission of a "think piece" pertaining to topic of the missed session (details below).

II. Ethics Forum
The ethics forum is an opportunity for you to apply the themes of each session to real life challenges, questions, concerns, and ruminations. For your contribution to the forum, please respond to the posted question(s) or questions posed during discussion; pose your own questions; and/or dialogue with fellow participants regarding the session topic. These need not be polished; however, they should reflect how you experience and make sense of the weekly topic. These will be due by Friday after each session to enable you to incorporate questions or comments related to discussion.

Think Piece (Only as make up for missed session)
1-2 pages; double spaced; one-inch margins per think piece
Due by March 4th, 2014 to the course coordinator

In the event that you miss a session, you will have the opportunity to fulfill the course deliverables and advance your understanding of the material by producing a "think piece," thereby critically evaluating the topic as it relates to your own research experience. The think piece should include a discussion of readings, case studies, and/or reflection on the relevance of the weekly theme for your own research. You can also use the think piece to respond to course-mates' blogs.

Statement on Accommodation

Postdocs who require a physical, medical, or learning accommodation can contact Disability Management at http://ucsfhr.ucsf.edu/index.php/dismgmt/

In compliance with Education code Section 92640(a), students may arrange to turn in course deliverables at a time that does not conflict with their religious observances.
Program Schedule

Session 1: Ethical Implications of Scientific Misconduct
Tuesday, January 21, 2014, 3-5pm
Genentech Hall N114

Facilitator

Anthony DeFranco, PhD, Professor, Department of Microbiology and Immunology, UCSF

This opening session addresses contemporary ethical issues in biomedical and scientific research. Training in this topic also addresses ethical issues involved in the development and dissemination of scientific research findings and how to report occurrences of scientific misconduct.

Session 2: Scientific Professionalism and Social Responsibility
Tuesday, January 28, 2014, 3:30-5pm
Genentech Hall N114

Facilitator

Jay A. Levy, MD, Director of the Laboratory for Tumor and AIDS Virus Research at UCSF; Research Associate, UCSF AIDS Research Institute

Professionalism in science denotes a pattern of behavior identified with scientific integrity that, in turn provides certain privileges. Like other professionals, scientists are expected to behave with intellectual honesty and excellence in thinking and doing. In many respects they perform their professional activities as a monopoly, licensed by society similar to doctors, nurses, lawyers, hairdressers, accountants, and real estate brokers. Besides providing their expertise, professionals are supposed to behave collegially and teach the skills to others, and put society's needs first in their professional activity. In response, society gives them a great deal of autonomy in conducting their professional lives. With scientists, that means selection of one's own research problems and methods of procedure. They also are given the responsibilities to allocate funding, and review of their output in publications. Like other professions they are given responsibility for discipline in the event of poor performance or malfeasance. When self-regulation fails to sustain honesty and high quality, society imposes rules and laws to maintain its interests in professional quality.

Source: http://ori.hhs.gov/education/products/ucla/chapter1/page03.htm

Elements of Professionalism:

- Intellectual honesty
- Excellence in thinking and doing
- Collegiality and openness
- Autonomy and responsibility
- Self-regulation
Session 3: Mentorship and Collaborative Science  
Tuesday, February 4th, 2014, 3:30-5pm  
Helen Diller 160

Facilitators

Susan Fisher, PhD, Professor, Ob/Gyn and Reproductive Sciences, UCSF

Susan Masters, PhD, Professor, Department of Cellular & Molecular Pharmacology, UCSF

Michael Stryker, PhD, Professor, Neuroscience Graduate Program, UCSF

Mentorship Responsibilities

The mentorship relationship passes on the informal and possibly unwritten standards from one generation of scholars to the next. Within a small research group, this mentoring may readily occur, but many current research groups are too large or competitive. Whether or not this has changed the extent to which new scientists become aware of prevailing standards of conduct, it appears that issues of responsible conduct are discussed infrequently.

Eastwood et al. (1996) found that nearly 40% of postdoctoral research fellows responding to a survey at the University of California, San Francisco reported having had no guidance in ethical research from a scientific mentor. Brown and Kalichman (1998) found that half of graduate students responding to a survey at the University of California, San Diego reported that the total time spent discussing responsible conduct of research with a major professor or advisor had been one hour or less. In a nationwide survey of doctoral students, Swazey and Anderson (1998) found that for nearly every defined dimension of training in ethics, over half of the respondents reported that faculty members provided little or no help.


Collaborative Science

The key to successful research collaboration is frequent, responsible, and fair communication between parties involved. A researcher must consider many factors prior to developing a research collaboration.

– Do I have the time to achieve this work?
– Does my lab have the necessary personal and technical resources?
– Am I genuinely interested by this collaborative project?
– Will my career goals, training and development benefit from this collaboration?

The decision to participate in a collaborative research project is a major responsibility; therefore, researchers must fulfill duties in a scholarly and responsible way such as addressing issues immediately as they arise. The ethical issues that may arise through research collaboration continue long after the dissolution of the collaboration.

Session 4: The University-Industry Interface and Scientific Entrepreneurship  
Tuesday, February 11, 2014, 3:30-5pm  
Genentech Hall N114

Facilitators

Leslie Benet, PhD, Professor, Department of Bioengineering and Therapeutic Sciences, UCSF

Karin Immergluck, PhD, Acting Director of Technology Management, UCSF Office of Innovation, Technologies & Alliances (ITA)

Eric Mah, MS, Senior Director of Research Compliance, UCSF Office of Ethics and Compliance

Stephanie Robertson, PhD, Director of Strategic Development, UCSF Office of Innovation, Technologies & Alliances (ITA)

This session addresses conflicts of interest (COI) at the university-industry interface. An interest may be defined as a commitment, goal, or value held by an individual or an institution. A conflict of interest exists when two or more contradictory interests relate to an activity by an individual or an institution. The conflict lies in the situation, not in any behavior or lack of behavior of the individual. That means that a conflict of interest is not intrinsically a bad thing. "A conflict of interest in research exists when the individual has interests in the outcome of the research that may lead to a personal advantage and that might therefore, in actuality or appearance compromise the integrity of the research." NAS, Integrity in Scientific Research

Biotechnology Entrepreneurship

Biotechnology, whether in the context of new drugs derived from DNA and genetic technology, genetically modified food, or biologics making use of living cells, raises ethical concerns at a variety of different levels. At the research level, there is concern that the very nature of research is being subverted, rather than enhanced, by entrepreneurship. This area of ethical concern has intensified in the United States as a result of the conflicts of interests resulting from the growing alliance between University academia and private industry in the research enterprise. As we travel down the research path into development of a drug or technology, ethical questions arise with respect to protecting human subjects and society from danger and exploitation by researchers. As development gives way to marketing and dissemination of a new product, government regulators are pressed to get drugs and biologics through the regulatory pipeline into the market faster, walking an ethical tightrope between speed and safety. As new biotechnology products enter the market place, doctors and patients traverse yet another tightrope, that between unknown risk and the promise of benefit. And finally, patent protection is increasingly viewed as a unethical culprit in keeping prices high and depriving the global poor from lifesaving drugs and biologics. Bioethics has, to date, been largely a creation of Western research and medicine. As such it is wholly inadequate to respond to the cascade of ethical issues that flow from a vibrant biotechnology industry. And if biotechnology is in its infancy, as most believe, it is crucial that scientists, entrepreneurs and governments engage in dialogue about the ethical and societal questions raised on the road of scientific progress.

Session 5: Data Management, Sharing, and Ownership
Tuesday, February 18, 2014, 3:30-5pm
Genentech Hall N114

Facilitators

Douglas Berman, SM, Deputy Director of Research Systems, UCSF

Megan Laurance, PhD, Research Informationist, UCSF Library and Center for Knowledge Management

Carly Strasser, PhD, Data Curation Specialist, California Digital Library

The data acquisition, management, sharing and ownership topic covers accepted practices and procedures for acquiring, storing, documenting, analyzing, sharing and maintaining data. It includes definitions for what constitutes data, procedures for maintaining the confidentiality and integrity of data, and proper methods for keeping records and processing and analyzing data. It also examines guidelines for who ‘owns’ data as well as the legal ramifications for intellectual property, patent and copyright laws.

Session 6: Responsible Authorship, Publication, and Peer Review
Monday, February 24, 2014
Rock Hall Auditorium 102

Facilitators

Patricia O'Sullivan, EdD, Professor, Department of Medicine, UCSF

Arianne Teherani, PhD, Associate Professor, Department of Medicine and Director of Program Evaluation, UCSF

This topic examines the responsibilities of authors in scientific publication. It includes procedures for assigning credit and authorship, the responsibilities of each author, as well as accepted practices for detailing methods, analyses and results and including appropriate citations. It also can focus on some of the pitfalls such as the pressure to publish.