RESPONSIBLE CONDUCT OF RESEARCH

Course Director: Marsha Michie, Ph.D.
Associate Director: Neha Kaul, M.S., M.A.
Senior Course Advisor: Barbara A. Koenig, Ph.D.

Course Manager: Asha Robertson

Course Description:

Responsible Conduct of Research helps people, especially those starting their research careers, learn how to address the ethical issues that inevitably arise in research. It meets the requirements of the National Institutes for Health for trainees to learn about ethical issues in human subjects research and research misconduct. This RCR course was initially developed by Dr. Bernard Lo at UCSF for the CTSI.

Course Objectives:

1. Identify common ethical issues that clinical and translational researchers commonly face and the ethical guidelines for addressing these issues.
2. Explain key elements of the federal regulations for research with human subjects.
3. Analyze the ethical issues in a research protocol, identify where it does not meet regulatory and ethical standards, and suggest how to address those problems.
4. Provide constructive feedback on colleagues' ideas regarding ethical issues in research.
5. Describe the ethical guidelines and federal regulations pertaining to research misconduct and conflicts of interest in research.

Faculty:

Marsha Michie, Ph.D., is an Assistant Professor in the Department of Social and Behavioral Sciences and the Institute for Health & Aging at the University of California, San Francisco. Marsha is a cultural anthropologist and empirical bioethicist whose work focuses on ethical, moral, and social issues in biomedical research and practice. She received her Ph.D. in anthropology from the University of North Carolina-Chapel Hill, and held postdoctoral training fellowships at UNC-Chapel Hill's Center for Genomics and Society and Stanford University's Center for Biomedical Ethics. Marsha is a collaborator in UCSF's Center for Transdisciplinary Research in Translational Genomics (CT2G.org) and the UC North Bioethics Collaboratory (ucnorthbioethicscollaboratory.org). Her current research focuses on the translation of prenatal cell-free DNA screening into clinical practice, on integrating ethical and social guidance into translational processes in biomedicine, and on integrating understandings of disability and identity into bioethics. She has previously taught courses in general anthropology, the anthropology of race, social issues in diversity, and responsible conduct of research.

Neha Kaul, M.S., M.A., is Senior Manager of the Institutional Review Board (IRB) in the Human Research Protection Program at the University of California, San Francisco. Neha received her M.S. in molecular and cell biology from the University of Heidelberg, Germany, and a M.A. in bioethics from New York University. She has worked in clinical research and basic research at Memorial Sloan-Kettering Cancer Research Center and the International Center for Genetic Engineering and Biotechnology. She previously served as Director of the Human Subjects Research Administration at New York Medical College and Scientific Manager of the IRB at NYU Langone Medical Center.

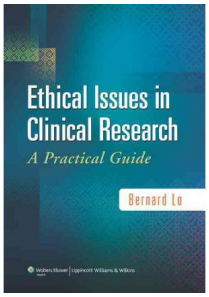
Barbara A. Koenig, Ph.D., is a medical anthropologist who works in the interdisciplinary field of biomedical ethics. She is a Professor in the Department of Social and Behavioral Sciences, Institute for Health and Aging, at UCSF. Previously she led biomedical ethics research programs at Stanford University and the Mayo Clinic. She co-chairs the "Responsible Conduct of Research" committee for the UCSF campus. She has pioneered the use of empirical social science methods in the study of ethical questions in science, medicine, and health; her research program has been funded by NIH for over two decades. Currently, she is studying return of incidental findings in genomic biobanks and using the techniques of deliberative democracy to engage communities. She is a fellow of the Hastings Center.

Course Dates:

Start date: July 18, 2016

End date: September 2, 2016

Course textbook:



Ethical issues in clinical research: A practical guide **by Bernard Lo, MD** (Philadelphia: Lippincott Williams & Wilkins, 2010). This text is on 2-hour reserve at the UCSF library (R853.C55L6 2010). It is also available in paperback to rent or buy, or as a Kindle ebook, at Amazon.com. Other sites, such as halfpricebooks.com, also offer used copies (see website for links).

Other course materials:

Other required readings, podcasts, and videos are included with selected modules and can be accessed from the course website. In addition, for each module the faculty have selected supplemental materials that you may wish to review. These recommended resources highlight current topics and controversies.

You may also want to download **45 CFR 46** (The Common Rule and subparts on research with special populations), the federal regulations with which all UCSF research must comply. As specific issues come up in your projects, it is always useful to go back to see what the regulations require. http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.html

The website for the **UCSF Institutional Review Board (IRB)** gives helpful guidance on how federal regulations are interpreted at UCSF and how to complete IRB applications. http://irb.ucsf.edu/

Online Class Discussion:

Your primary responsibility in this course is to **participate actively**. You will be assigned to a small group of about 20 fellow students for discussion of a weekly case study. This gives you an opportunity to think through issues raised by current or recent real world cases and to articulate your ideas. You are expected to **POST** an initial response to each case study on the weekly course discussion forum, and then to read the responses of all the students in your small group. To access the discussion blog, click on the "case study" link. Later each week, you will join your fellow students in a live discussion during a one-hour WebEx discussion session (see below). Please adhere to this schedule so that we have adequate time for robust dialogue:

1. **POST** your initial response to the discussion forum by **MIDNIGHT TUESDAY.**
2. **DISCUSS** the case with your fellow students during your scheduled small group discussion session.

How the discussion forum will work: You may **Read, Post, and Reply** within your assigned group. You may **Read Only** in other groups if you are interested in seeing the dialogue beyond your own group. Moodle automatically places you in your assigned group – you need do nothing beyond entering the discussion forum. If you would like to enter other groups, you may do so by clicking the drop-down menu at the upper left side of the screen and then click on any group.

The faculty and teaching fellows monitor the ongoing dialogue throughout each week and use it in guiding small group discussions in weekly discussion sessions.

Forum Discussion Hints:

We look forward to your thoughtful and significant posts to the forum. Responses that amount to "virtual head-nodding" ("I agree", "Good idea", "Interesting") are nice preambles to your fully developed ideas, but do not count for participation credit.

Your replies might build on, challenge, question, reinforce, debate, probe, appreciate, acknowledge, argue respectfully—in order to advance and stimulate the collective exploration of the case in a compelling manner. Look to add something new or an interesting twist.

Your posts to the forum should be mostly YOUR OWN IDEAS. We are not looking for "correct" or "textbook answers" but rather for critical thinking and weighing of the ethical issues, alternatives, and consequences.

Please think about how your own thinking is developing within each discussion.

- Does the conversation challenge you to reconsider your views?
- Do you have new information that you had not initially considered?
- Did you change your mind?

You are welcome to share helpful materials—articles, news items, online resources, etc.—with proper attribution. Moodle allows you to upload files to the discussion forums.

Weekly discussion sessions:

Each week (except for week 1), your small group will meet with a Teaching Fellow for a one-hour sync session, in which you will discuss the readings and case study for the week. **YOU ARE REQUIRED TO ATTEND A DISCUSSION SESSION EACH WEEK.** (If an unexpected conflict makes it impossible for you to attend a discussion session, please contact your session leader for help in attending a different session or making up one week's discussion. A make-up assignment to substitute for one—and ONLY one—week's discussion will be allowed in special circumstances. Missing more than one weekly discussion will result in failure of the course.) Live discussion is a requirement of Responsible Conduct of Research training, per NIH guidelines. If you are unable to meet this requirement, you should plan to take this course at a later date.

Before the course starts, you will be contacted to sign up for a preferred discussion session time. If you are unable to attend any of the times offered, please contact the Course Manager, Asha Robertson, to see if special arrangements can be made. We cannot guarantee that such arrangements will be available.

Discussion sessions will be conducted using WebEx. You may log in through an Internet-connected computer that has a microphone and speakers, or is connected to two-way earphones. You may also use a telephone to connect to the discussion session, although with this method you will not be able to see shared screens or other features of the WebEx session.

A Note about Privacy and Confidentiality:
You are strongly encouraged to express your ideas, opinions, and beliefs within the Responsible Conduct of Research discussion forums and in the discussion sessions. In order to protect your ability to express yourself authentically and honestly, we ask that the dialogue be confined to this course site. ***Keep this space safe for dialogue: do not share specific things said by other students outside of this course.*** *While you may discuss general themes with others beyond this course, we ask that you protect the privacy and confidentiality of all members of this course by adhering to strict non-attribution practice. Only people officially enrolled in this course may access the course site and content.*

COURSE SCHEDULE 2016

MODULE 1
July 18 – 22
Course Introduction (NO discussion session this week)

Objectives:

- Obtain access to required course materials.
- Fulfill basic human subjects training requirements for researchers.
- Familiarize yourself with and introduce yourself to the course, the instructors, and your fellow students.

Assignment: Post your introduction to the course discussion forum for Module 1 by midnight, July 22.
Assignment: Complete the **Learner Contract** by midnight, July 22.
Assignment: Review the syllabus and expectations for the course on the course site: **https://courses.ucsf.edu/course/view.php?id=3031**.
Assignment: Purchase/Gain access to the required textbook (see course website for more links): ***Ethical Issues In Clinical Research: A Practical Guide*, by Bernard Lo, MD**.
Assignment: Complete the **CITI Human Subjects Protection Training**. This online module is required for key personnel in any study protocol submitted to the IRB at UCSF. It provides an overview of the federal regulations and UCSF policies that govern human subjects research. You will be asked to designate the type of research you are doing and will be directed to the appropriate modules. (See the **UCSF IRB page on CITI training** for full instructions on registering and completing CITI training. If you are not from UCSF, register through your own institution and complete the modules your IRB requires.) ***Note: If you have completed the CITI human subjects protection training online course within the past three years and you are not embarking on a new study, you are excused from this activity.***
Assignment: Complete the **Research Aspects of HIPAA Tutorial**. This online tutorial includes questions on HIPAA and PHI, and takes less than 1/2 hour to complete. ***Note: If you have previously completed this tutorial, you are excused from taking it now.***

MODULE 2
July 25 – 29
Overview of Clinical Research Regulations

Objectives:

- Identify the key features of the federal regulations for human subjects research.
- Identify the types of research that are subject to the Common Rule.

- List six criteria that must be satisfied for IRB approval prior to a study.
- Describe how you would evaluate and optimize risks and benefits for a study in your research area.
- Identify five important ways to discuss benefits and risks with study participants.

NOTE: From this week forward, you must post a response to the online discussion forum EACH WEEK by midnight Tuesday, and attend the live online discussion session EACH WEEK. Log onto the course website (**https://courses.ucsf.edu/course/view.php?id=3031**) to access the discussion forum and link to your weekly live discussion session.

Reading: Chapter 3: Federal regulations on human participants research
Infographic: "Determining whether human subjects are involved in research" (from the UCSF IRB)
Reading: Chapter 5: Assessment of benefits and risks
Reading: Gregory Kaebnick, "Ongoing controversy over SUPPORT," *Hastings Center Report*

Video Lecture: History of research (Bernard Lo)
Video Lecture: Assessing risks and benefits (Bernard Lo)
Video Lecture: Practical issues in IRB reviews (Bernard Lo)

Assignment: Read and post a response to this week's Case Study.

MODULE 3
August 1 – 5
Informed Consent and Related Issues

Objectives:

- Define informed consent.
- List six information elements researchers must disclose to participants.
- Describe at least three examples of vulnerable populations or participants.
- Define the HIPAA Health Privacy Rule.
- Discuss an ethical rationale for exceptions to consent.

Reading: Chapter 6: Informed consent
Reading: Sample informed consent documents

Video: Informed consent and medical research (PBS Religion & Ethics Newsweekly)

Assignment: Read and post a response to this week's Case Study.

MODULE 4
August 8 – 12
Conflicts of Interest

Objectives:

- Define conflicts of interest.
- Discuss the association between conflicts of interest and bias in research projects.
- Discuss how and under what circumstances disclosure, management, and prohibition are appropriate responses to conflicts of interest.

Reading: Chapter 15: Conflicts of interest
Reading: Carl Elliott, "University of Minnesota blasted for deadly clinical trial," *Mother Jones*
Reading: Lisa Rosenbaum, "Beyond moral outrage — weighing the trade-offs of COI regulation," *New England Journal of Medicine*

Video: Overview of NIH/NSF conflict of interest guidelines (National Council of University Research Administrators)
Video: Beware conflicts of interest (Dan Ariely, TED Talk)

Assignment: Read and post a response to this week's Case Study.

MODULE 5
August 15 – 19
Authorship and Research Misconduct

Objectives:

- Describe the purpose of and criteria for authorship.
- Explain how disputes over authorship might be resolved.
- Define the federal standards for research misconduct.
- Describe at least three warning signs of research misconduct.
- Discuss how institutions should respond to allegations of research misconduct.

Reading: Chapter 12: Research misconduct
Reading: Chapter 13: Authorship and its responsibilities
Reading: Ira Glass, "Canvassers study in episode #555 has been retracted" (*This American Life* blog)
Reading: John Bohannon, "For real this time: Talking to people about gay and transgender issues can change their prejudices" (*Science* news)

Reading: C.K. Gunsalus & Drummond Rennie, "If you think it's rude to ask to look at your co-authors' data, you're not doing science" (RetractionWatch.com)

Podcast: The incredible rarity of changing your mind, Prologue and Act I (*This American Life*)

Assignment: Read and post a response to this week's Case Study.

MODULE 6
August 22 – 26
Research Ethics in Big Data and "Precision Medicine"

Objectives:

- Discuss potential ethical opportunities and challenges in "precision medicine" and data sharing.
- Discuss authors' ethical obligations regarding sharing research materials and data.
- Discuss researchers' ethical obligations regarding the return of results to participants.

Reading: Chapter 27: Genetics, genomics, and gene transfer research
Reading: Sara Reardon, "Giant study poses DNA data-sharing dilemma: US Precision Medicine Initiative must decide how much data to release to participants" (*Nature* News)
Reading: Gail Jarvik et al., "Return of genomic results to research participants: The floor, the ceiling, and the choices in between" (*American Journal of Human Genetics*)
Reading: Ida Sim, "Two ways of knowing: Big data and evidence-based medicine" (*Annals of Internal Medicine*)

Video Lecture: Evolving opportunities and challenges: Big data (Wylie Burke)
Video Lecture: Return of results: "Incidental" findings in research and clinical care (Wylie Burke)

Assignment: Read and post a response to this week's Case Study.

MODULE 7
AUGUST 29 - SEPTEMBER 2
Research in Resource-Poor Environments

Objectives:

- Describe how research in resource-poor countries differs from research in the U.S.
- Explain why use of placebos in clinical trials may be unethical in developing countries.

- Discuss issues related to provision of background and ancillary care, informed consent, access to the study intervention after the trial, and collaboration with host-country stakeholders.

Reading: Chapter 22: Clinical research in resource-poor countries
Reading: Dina Fine Maron, "The U.S. takes its first shot at Zika" (*Scientific American)*
Reading: Saad B. Omer & Richard H. Beigi, "Pregnancy in the time of Zika: Addressing barriers for developing vaccines and other measures for pregnant women" (*JAMA*)
Reading: Arthur Caplan, Carolyn Plunkett & Bruce Levin, "Selecting the right tool for the job" (*American Journal of Bioethics*)

Assignment: Read and post a response to this week's Case Study.

COURSE EVALUATION

Please take a few minutes to fill out the course evaluation. As we strive to improve our online educational program, we need and value your input. Many of the changes in our program have been ones suggested by prior trainees. *The content of your course evaluation is anonymous, but the system will record that you completed it.*