Training in the Responsible Conduct of Research

PLAN FOR INSTRUCTION IN RESPONSIBLE CONDUCT OF RESEARCH (RCR):

Overview: In accordance with NIH guidelines, UC Davis has three paths required for all pre-doctoral researchers: A. NIH/NSF training and certification in RCR, B. interdisciplinary academic curriculum, and C. accessible collaborative consultation on emerging bioethics and research planning issues.

1. Format: CLH 204 (Responsible Conduct of Research) is the academic primary class held on RCR topics. Here, substantial personal discussions occur among the trainees/fellows/scholars/participants; the discussion incorporates a combination of didactic and small-group discussions. The Office of Research (OR) Research Compliance and Integrity Unit (RCI) supports both the CITI tutorial in Human Subjects Protection and the CITI Good Clinical Practice tutorials. These are self-paced, web-based tutorials that typically present information to a student and then reinforce this with additional questioning derived from real life case studies. Finally, the Clinical Translational Science Center (CTSC) offers a range of in person consultation and research services to assist investigators in addressing ethical issues throughout the life of a research project or training program.

2. Subject Matter: CLH 204 will address several key areas in research: 1) The lines that must not ever be crossed in research 2) The big picture in which modern research is situated 3) The deep questions posed by 21st century science and technology. Students will acquire information about the ethical responsibilities that biomedical researchers face, explore some of the major questions in ethics, and values generated by contemporary biomedical research, discuss the application of ethical principles and concepts to ethically challenging aspects of scientific research.

The RCI web based tutorials cover the following topics plus others:
1. Responsible authorship and relationships
2. Animal subjects in research
3. Financial management of grants
4. Research misconduct
5. Human subjects in research
6. Conflict of interest

The CTSC offers consultation services on any desired RCR question necessary to be answered. For example, questions like "confidence that the anticipated benefits of my research will outweigh its risks," "how do I know if the consent process that I plan to use for my research is the most appropriate one," and "how should authorship be assigned on manuscripts" are commonly asked in consultation sessions.

3. Faculty Participation: Dr. Mark Yarborough personally teaches CLH 204 each year at UC Davis. The Office of Research (OR) Research Compliance and Integrity Unit (RCI) supports both the CITI tutorial in Human Subjects Protection and the CITI Good Clinical Practice tutorials. Dr. Mark Yarborough is also the primary contact for all CTSC consultation services.

4. Duration of Instruction: CLH 204 is a 1 credit course consisting of 1.833 hour lectures over a 9 week quarter. This course is taken each quarter for a year, and in total constitutes 3 credits and 49.5 hours of instruction. CTSC consultation services are offered on normal university business hours, and typically last the necessary duration of time until a researcher feels confident in an ethical approach.

5. Frequency of Instruction: While enrolled at UCD graduate students are expected to take CLH 204 every quarter for a year starting in the fall quarter. The RCI web based tutorials are audited annually and must be renewed every 3 years. CTSC consultation services are not required but are heavily advised, and are available on normal UC Davis business hours. Personally, I plan to take complete all my RCI web based tutorials in 2017, and undertake CLH 204 in 2018. I will also utilize consultation services as necessary

Personal: In my meetings with my sponsor Dr. Jason Adams and Dr. Nicholas Anderson, we will discuss responsible conduct of scientific research. These discussions will become more frequent as I design new studies of my own. I will also strive to publish all code to online repositories such as my personal GitHub account where any researcher can make use of my work.