

## TRAINING IN RESPONSIBLE CONDUCT OF RESEARCH

### Completed Training

The University of Kentucky Graduate School utilizes unique opportunities to train individuals in Responsible Conduct of Research (RCR), occurring, both, in the first year Integrated Biomedical Sciences Program curriculum and subsequent years of dissertation research. During my first year, I completed the 'Ethics in Scientific Research' course, which met 1 hour each week for 15 weeks and was directed by Isabel Mellon, PhD. The course held lectures and interactive activities led by numerous biomedical researchers and clinicians, outlined below:

Weeks 1 - 3: Mentoring / Laboratory Supervision

Weeks 4 & 5: Plagiarism / Authorship / Publication

Week 6: Ethics and Regulations of Animals in Research

Weeks 7 - 10: Data Management / Scientific Misconduct / Commercializing Scientific Discovery

Weeks 11 - 15: Case Studies / Human Subject Research

In subsequent years, I completed additional trainings/courses, outlined below:

Collaborative Institutional Training Initiative Courses: Biomedical Investigators and Key Personnel, Health Insurance Portability and Accountability Act (HIPPA) and Human Research

Department of Laboratory Animal Research: Euthanasia of Research Animals, Pain Management of Laboratory Animals, Common Compliance Issues

### Planned and Ongoing Training

I will enroll in the 'Fundamentals of Bioethics' course offered by the University of Kentucky Department of Pharmacology (PHS711). Also, I will take advantage of bimonthly University of Kentucky Bioethics Program seminars, annual RCR trainings, and guidance from my sponsor and advisory committee members.

Format: PHS711, the University of Kentucky Bioethics Program seminars, and RCR trainings are in-person. My sponsor, Dr. Campbell, trains me in RCR practices during our weekly one-on-one meetings.

Subject Matter: Curriculum of PHS711 covers many topics, outlined below:

Weeks 1 & 2: Mentor-Mentee Relationships / Responsible Authorship

Weeks 3 & 4: Ethical Data Interpretation / Ethical Use of Vertebrate Animals

Weeks 5 & 6: Ethical Research Administration / Conflict of Interest

Weeks 7 & 8: Ethical Human Resource Management / Diversity and Inclusivity

Weeks 9 & 10: Data Management / HIPPA and Privacy of Human Subjects

Weeks 11 & 12: Ethics of Using Human Subjects / Intellectual Property

Weeks 13 & 14: Research Misconduct / Ethics of Legal intervention

Recent topics of the University of Kentucky Bioethics Program seminars include laboratory breaches, bioethics of non-human primate use, and HIPPA compliance. The University of Kentucky RCR trainings contain seven modules and an annual refresher course, spanning a breadth of related topics. My sponsor and I frequently discuss rigor and reproducible research, impartial data reporting, and protection of human subjects.

Faculty Participation: PHS711 is team-taught by Joseph Chappell, PhD, and Oleg Tsodikov, PhD. The University of Kentucky Bioethics Program seminars has rotating guest speakers from various academic backgrounds and is hosted by Sara Rosenthal, PhD, Director of the Bioethics Program. Advisory committee members John McCarthy, PhD, and Esther Dupont-Versteegden, PhD, will be available to discuss proper experimental design and responsible analysis/reporting of biochemical data. Additional topics of patient privacy and ethics when working with human samples and clinical data will be discussed with advisory committee members Yuan Wen, MD/PhD, and Vedant Gupta, MD.

Duration and Frequency of Instruction: PHS711 lasts one semester, 2 hours weekly. The University of Kentucky Bioethics Program seminars are held bimonthly for 1 hour. I meet, at least, weekly and every 6 months with my sponsor and advisory committee, respectively.

In total, this training plan has greater than 35 contact hours, exceeding the 8 hours required by NIH during this F31 award period.