Training in Responsible Conduct of Research (F32 sample)

**Format:** Along with frequent discussions with my faculty mentor, Dr. Tim McClintock, methods for responsible and ethical research have also been established through a semester-long Ethics in Scientific Research course, online training modules, and seminars.

**Subject Matter:** The TOX 600 course covers the following topics:

- Plagiarism
- Mentoring and Laboratory Supervision
- Research Notebooks and Data Management
- Bias in Research
- Authorship and Publication
- Animals in Research
- Peer Review of Manuscripts and Grants
- Human Bioethics including Stem
- Scientific Misconduct

The course consists of both didactic lectures and small group discussions. Group presentations and debate of topics discussed in the course are evaluated by fellow students and course instructors.

In addition, I have completed the following online courses

- Environmental Health and Safety Courses on the following subjects:
  - Hazardous Waste
  - Chemical Hygiene Plan/Laboratory Safety
  - Bloodborne Pathogens

- Euthanasia of Research Animals: American Association for Laboratory Animal Science Learning Library (http://aalaslearninglibrary.org)

- IACUC Policies and Procedures for the use of rats and mice for research

In November 2009, I participated in a one hour seminar and hands-on training session on “CO2 Euthanasia” conducted by the Division of Laboratory Animals, University of Kentucky.

**Faculty Participation:** TOX 600 was led by a team of instructors including principal investigators, department chairs, bioethicists, and veterinarians from the Division of Laboratory Animal Research. In addition, the ongoing Bioethics Grand Rounds provides monthly seminars from internal and external speakers. Through conversations with my mentor, Dr. McClintock, he has bestowed upon me the ethical comprehension which comes through decades of experience working with various animal models. Our discussions have also included the hazards of unfounded data manipulation and our responsibility to design experiments appropriately and obtain and present scientifically sound data. Principles taught on the ethics of research are reinforced during lab meetings and journal clubs.

**Duration of Instruction:** TOX600 is a 2 credit semester-long course, with a total of 14 contact hours.

**Frequency of Instruction:** I completed the TOX 600 course in July 2003. Since this was 7 years ago I plan to retake the course this summer. The training in occupational health and safety, hazardous waste and blood borne pathogens are required every year. Bioethics Grand Rounds presentations occur monthly. Responsible conduct of research is also discussed as part of the NRSA grant writing workshop held each spring.