

Training in the Responsible Conduct of Research

A top priority for my graduate training is conducting ethically responsible research. The University of Pittsburgh and Carnegie Mellon University MSTP has provided me with courses, seminars, and professional development workshops which will aid in my development into an ethical and thoughtful physician scientist. Over the course of my eight-year MSTP training, I will complete over 100 hours of ethics training. The format of my ethical training is as follows, in order of completion: 1) medical school lectures and online coursework, 2) Medical Scientist Training Program (MSTP) ethics coursework, 3) MSTP workshops, and 4) graduate school ethics seminars and online coursework. **For each of these components, I will address the format, subject matter, level and form of faculty participation, duration of instruction, and frequency of instruction.**

1) University of Pittsburgh School of Medicine: Ethics, Law and Professionalism Course in Patient, Physician, and Society block (Completed 12/2017): This course met weekly for a 50-minute lecture from the course directors, Dr. Julie Childers and Dr. Joseph Yanta, and for a 50-minute small-group discussion led by a School of Medicine faculty member. The course was 20 weeks in duration. Topics discussed included ethical recruitment and use of human subjects in research and ethical approaches to delivering patient care, among many others. These topics were reviewed with online content before small group discussions.

2) MSTP Professional Development 2 Course (Completed 08/2018): In the summer of 2018, I completed this course as part of the Pitt MSTP curriculum. The course met eight times for 90-minute sessions that combined didactic lecture and small-group discussion led by the program director, Dr. Richard Steinman. Topics included rigor and reproducibility, falsification/fabrication of data, data documentation and ownership, and mentor/mentee relationships.

3) MSTP Workshops (Started 06/2017, ongoing): The MSTP program holds monthly gatherings for its entire student body. Each session is 90 minutes long and involves a combination of lecture and round-table discussion. Topics vary widely, but each session includes ethics as a learning objective.

4) University of Pittsburgh IACUC Animal Research Online Classes (Last Completed 06/2018 and ongoing): The University of Pittsburgh IACUC provides a series of online training modules that are required for individuals performing research at the university. I first had to complete these modules when I started in the MSTP in June of 2017 and I have regularly re-completed the modules. Topics include use of rodent subjects in research, laboratory safety, research integrity, and environmental health and safety.

Training to be Completed During the Fellowship Period

Ethics for Medical Scientists: In the spring of my first year of graduate school (2020), I will take a specialized ethics course offered by the Pitt MSTP designed to teach ethics topics relevant to aspiring physician scientists. This course consists of five two-hour long group sessions led by Dr. Richard Steinman and Dr. Karen Schmidt, the Director of Responsible Conduct of Research Center at Pitt. During these sessions, students will learn about applying analytical methods systematically to the evaluation of ethical dilemmas. Students will then apply these methods within the context of biomedical ethics cases. This course will provide with me a framework based upon current methods and principles in ethics and will translate conceptual methodologies into practical skills for evaluating ethical dilemmas.

University of Pittsburgh Responsible Conduct of Research Training Center: The Clinical and Translational Sciences Institute at the University of Pittsburgh offers weekly, one-hour seminars on a wide variety of topics taught by faculty members from throughout the University of Pittsburgh. I will attend at least eight of these seminars during my graduate school training.

MSTP Workshops: (see above)

Role of Dr. Sarah Ross in Responsible Conduct of Research Training:

Throughout my graduate school training, I have had and will continue to have constructive conversations with Dr. Ross regarding ethical issues in the conduct of research. In addition, the experience of performing research in her lab and our close mentor/mentee relationship will allow for robust training in the responsible conduct of research.