

TRAINING IN THE RESPONSIBLE CONDUCT OF RESEARCH (RCR)

The Graduate School of Biomedical Sciences at UNTHSC requires pre-doctoral students to take two courses in the responsible conduct of research. The first course *Biomedical Ethics* (BMSC 5160) introduces trainees to what characterizes an ethical scientific code and the origins of regulatory components. This course is taught by Drs. Roane and Gregory and meets for one hour/week over the course of a semester. Meetings include discussions and case-studies on: morality versus ethical theory, animal research and IACUC, human subjects, IRB and informed consent, data ownership and intellectual property and other complicated issues.

The second course in the series, *Responsible Conduct of Research* (BMSC6101) goes more in depth into frequent dilemmas that arise in laboratory research, such as scientific misconduct, authorship issues, mentoring problems, diversity and inclusion, rigor and reproducibility in research and professionalism. This semester long course is taught by Dr. Gregory. The course text is: *Scientific Integrity: An Introductory Text with Cases*. Case discussions and weekly student presentations introduce complications that surface when inappropriate conduct arises or is mishandled.

Format –

On-line: All graduate students are required to complete the basic CITI online training, HIPPA and IACUC and Biosafety training (2 hours). They will also be required to view the series of four YouTube videos on Rigor and Reproducibility in Research created by the NIH. Dr. Gregory will then lead a brief discussion of the topics covered in the videos (1 hour).

Every fall semester, students receive notices from the Office of Institutional Compliance to complete training. All required training and must be completed 30 days from the date it is assigned. The training modules are designed to provide students with an understanding of policies and procedures on campus and find out where to go if assistance is needed. (2 hours)

In Person (didactic): Students are required to complete two separate courses (BMSC 5160 and BMSC 6101). The syllabus for these courses is attached (30 hours total).

Video: GSBS graduate students are required to watch “*The Lab: avoiding research misconduct*” an interactive video on research misconduct provided by the Office of Research Integrity (2 hours).

Informal: In addition to discussing any research concerns at their lab meetings, the students are required to discuss the IACUC or IRB protocol for their project with their mentors (1 hour).

Subject Matter –Students discuss case studies and news articles on a variety of subjects that include: plagiarism, falsification and fraud in research findings, fiscal misconduct, what constitutes appropriate and inappropriate conduct in mentoring, authorship, role of lab members and the management of personnel, intellectual property/patenting issues, and data record keeping.

Faculty Participation – Both clinical and basic science faculty participate in the formal courses that the students are required to complete.

Duration of Instruction – At least 42 hours of training is completed by all graduate students and is spread throughout the curriculum. It includes both formal and informal discussions of research issues.

Frequency of Instruction – Continuous, on-going RCR training occurs throughout the graduate research training period. Focused, didactic courses occur in years one (BMSC 5160) and two/three (BMSC 6101) of graduate training.