

SCHOLARSHIP AND RESEARCH INTEGRITY

The America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act (America Competes - 2007) includes a requirement that each institution applying for funding from the National Science Foundation (NSF) “describe in its grant proposal a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduate students, graduate students, and postdoctoral researchers participating in the proposed research project.” This requirement is also being adopted by the National Institutes of Health (NIH). In terms of graduate students, the federal agencies expect that training in the responsible conduct of research (RCR) will be required of all students enrolled in degree programs for which the training is appropriate and will employ multiple approaches.

Georgia State University (GSU) is committed to promoting research ethics within the University community and modeling integrity across all disciplines and areas of research. As research has become more complex, collaborative, and costly, issues of research ethics similarly have become complex, extensive, and important. The federally mandated training of all levels of students at GSU in the responsible conduct of research must prepare them to face these issues in their professional lives. The Scholarship and Research Integrity (SARI) program at GSU, developed in response to the America Competes Act requirements, is designed to offer students enrolled in undergraduate research, graduate degree programs, and post doctoral programs comprehensive training in the responsible conduct of research in a manner that is tailored to address the issues faced by students in their respective programs.

SARI AT GSU

Based on guidance provided by federal Office of Research Integrity (ORI) and the Council of Graduate Schools in a report entitled “Graduate Education for the Responsible Conduct of Research,” GSU’s SARI graduate training program includes both interdisciplinary and program-specific content on the responsible conduct of research. The SARI program includes two parts:

- 1) During the first year of enrollment, graduate students will be required to complete an online RCR training program provided by the Collaborative Institutional Training Initiative (CITI). The Office of Research Integrity at GSU provides the portal on the GSU web site: http://www.gsu.edu/research/research_integrity.html. This online CITI training course is being adopted widely by research universities to help meet the federal requirement for RCR training, and it includes discipline-specific training modules with a number of foci, including: biomedical, social and behavioral, physical science, arts & humanities, and research administration. **Postdoctoral fellows, plus all undergraduate research students listed on IRB or IACUC protocols or who work**

on research projects for course credit (e.g., honors thesis, research practicum), as student assistants, or as volunteers, are also required to complete the CITI online training.

- 2) To meet federal expectations that graduate student and post doctoral fellows RCR training employ multiple approaches, students will also be required to engage in at least 5 hours of additional discussion-based RCR education prior to degree completion. These discussions will encompass both universal and discipline-specific material.

The SARI program will be implemented by GSU colleges and graduate programs in a way that meets the particular needs of each discipline's students. Several topics have been identified by the federal Office of Research Integrity (ORI) as core elements of RCR education. RCR activities offered within each college and graduate program should focus on these topics as they relate to research conducted by the disciplines in the college/program:

- Acquisition, management, sharing, and ownership of data
- Publication practices and responsible authorship
- Conflict of interest and commitment
- Research misconduct
- Peer review
- Mentor/trainee responsibilities
- Collaborative science
- Human subjects protections
- Animal welfare

College and Graduate Program Involvement

The second part of the SARI program will be designed by and administered through each college at GSU with training of graduate students to begin in the 2009-2010 school year. Each college will develop a plan for how students in their graduate programs will meet the 5 hours of discussion-oriented RCR education. This part of SARI program will address broad as well as discipline-specific issues. The Office of Research Integrity at GSU will provide online resources to colleges and graduate programs to assist in the second part of the SARI program.

SARI Program Implementation

Colleges need to develop their SARI Program plans describing the educational activities that will be offered through their graduate programs (e.g. topic, length, instructional delivery, and target audience). A variety of models of such discipline-specific training programs are being adopted by research universities in response to federal requirement. These models range from offering discussion-based RCR training to students through required graduate courses (e.g., research methods or ethics courses) to evening seminars for which students register but do not receive course credit. Each program should evaluate the needs of its students, keeping in mind the types of research and scholarship in which the program is engaged. Plans should address the topics of research and scholarship in which graduate students and post doctoral fellows in their discipline-specific programs are engaged and how best to raise awareness of both general and discipline-specific issues. Programs may include a request (with justification) to waive parts of the training (e.g., the CITI requirement) for students enrolled in programs for which the training is not appropriate. Programs that are geared toward developing practitioners, rather than researchers, or disciplines using non-empirical research methods are examples of programs for which CITI training might not be appropriate. Plans should also include an oversight program to ensure that all students enrolled in graduate degree programs are receiving the required training or have received a waiver for such training. The final plan that each college develops must be submitted to the Vice President of Research by November 15, 2009 and be ready to be implemented starting January 2010.

SARI Program Evaluation

The GSU SARI program has been developed based on guidance provided by the federal Office of Research Integrity and the Council of Graduate Schools, and using training plans developed at other research universities (especially Penn State) as templates. The Senate Research Committee will monitor the first year of the SARI program at GSU and will recommend changes in future years based on feedback from the colleges and graduate programs on how to comply with federal regulations and maximize the implementation of high quality, discipline-relevant graduate training in the responsible conduct of research while minimizing the administrative burden placed on colleges and graduate programs.