



COLUMBIA UNIVERSITY

GRADUATE SCHOOL OF ARTS & SCIENCES

Institutionalizing Research Ethics and Scholarly Integrity: Model Programs

Columbia University

Graduate School of Arts and Sciences

Henry Pinkham

Dean, Graduate School of Arts and Sciences

Professor of Mathematics

This project is supported with generous funding and assistance from:

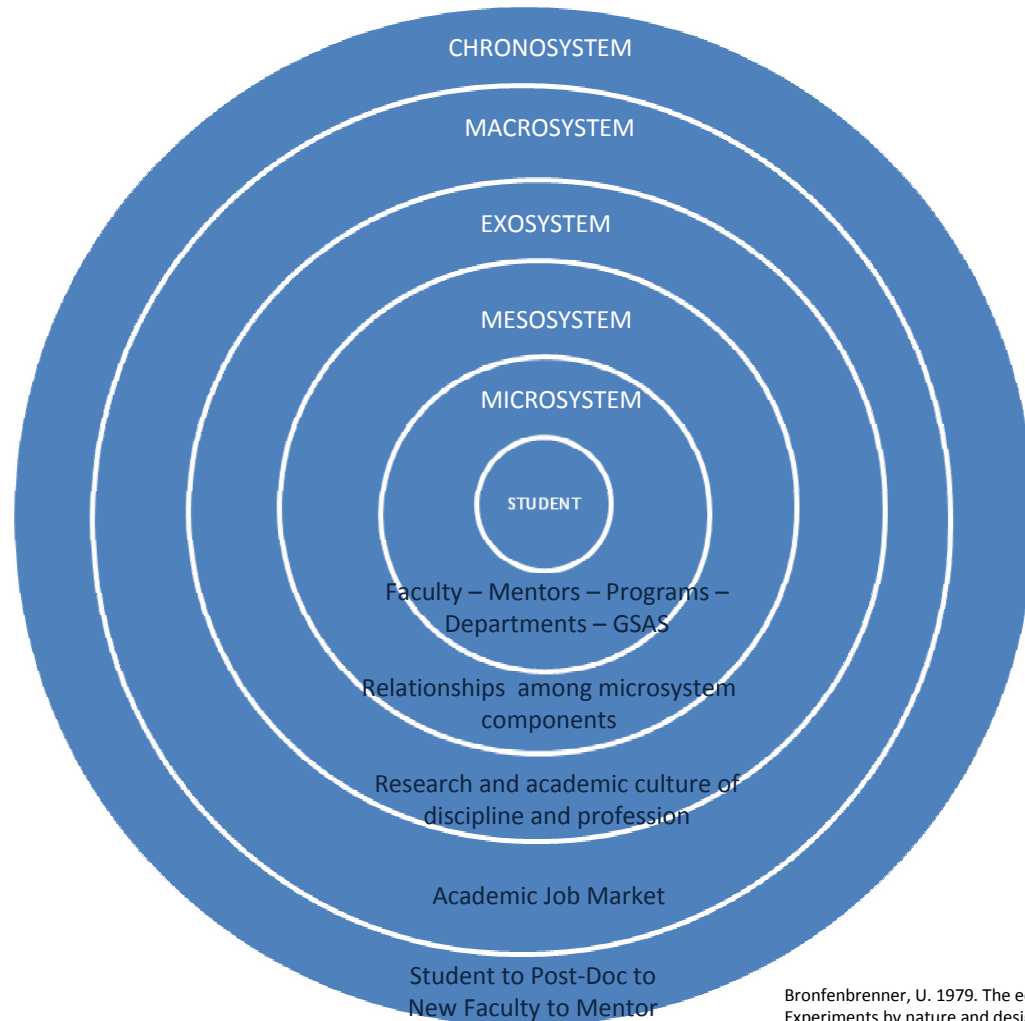
The Council of Graduate Schools, Debra W. Stewart, President; Daniel Denecke, Program Director; and Julia Kent, Program Manager

Office of Research Integrity, U. S. Department of Health and Human Services, Loc Nguyen-Khoa, Program Officer and Director of Online Education and Communication

Columbia RCR/PSI research survey and activities focus on:

- 3,486 Ph.D. Students
- 6,187 Master's Students
- 783 Post-Doctoral Fellows
- 1,812 Faculty, Research Staff, and Officers

Columbia's approach to developing more comprehensive and integrated Responsible Conduct of Research (RCR) and Scholarly Integrity (SI) training



RCR and SI Content at Columbia

- Data acquisition, management, sharing, and ownership
- Conflict of interest and commitment
- Research on human subjects
- Animal welfare
- Avoidance of research misconduct
- Publication practices and responsible authorship (including avoiding plagiarism)
- Mentor/trainee responsibilities
- Peer review
- Collaborative science
- **Communicating research and scholarship to popular press and non-academic audiences**
- **Managing grant and contract budgets**
- **Academic integrity**
- **Responsible conduct in teaching**

CGS funded five projects at seven institutions:

- ❖ Columbia University
 - Henry Pinkham, Dean
- ❖ Emory University
 - Lisa Tedesco, Dean
- ❖ Michigan State University
 - Karen Klomparens, Dean
- ❖ The Pennsylvania State University
 - Eva Pell, Dean
- ❖ University of Wisconsin-Madison
 - Martin Cadwallader, Dean
- ❖ University of Alabama at Birmingham
 - Bryan Noe, Dean
- ❖ University of Arizona
 - Andrew Comrie, Dean

Inventory of Program RCR and SI Activities: Sample Questions

- Is there a departmental committee with responsibility for facilitating the education of all departmental personnel on responsible conduct of research and scholarly activities?
- Does your department/program hold forums that address responsible conduct of research and scholarly activities, at least in part? Examples include, but are not limited to, speaker series, seminars and workshops or a formal class. Please include the frequency, audience and title/topic of SPECIFIC programs you conduct in the comments box.
- Is information about responsible conduct of research and scholarly practices included on your departmental/program website? If so, please include the URL(s) in the comments box.
- Does your department/program promote “difficult discussions” regarding research and scholarly integrity through courses, workshops and/or seminars? An example might be a discussion of what a trainee should do if he/she observes falsification of data in the lab.
- Is communication of responsible research practices to trainees (postdoctoral fellows, graduate students, undergraduate students, technical staff) considered in the tenure and promotion process?



Survey on Responsible Research Practices (aka Climate Survey)

For the university and for your department ...

- How committed are people to maintaining high standards of integrity in research/scholarship?
- How consistently does the overall “climate” in reflect high values for the responsible conduct of research?
- How accessible are individuals with appropriate expertise that you could ask for advice if you had a question about research ethics?

The survey was developed by Carol Thrush, Jim Vander Putten, Brian Martinson, Terry May, and James Wells.

How do your **faculty** learn about the following research and scholarly integrity topics? Please mark with an X all that apply.

	Independent Research	Workshops (e.g. RCR train-the-trainer courses and workshops)	Printed materials	Web-based materials (e.g. online modules)	No Resource	N/A
Data acquisition, management, sharing and ownership	X		X	X		
Conflicts of interest and commitment						X
Use of human participants in research						X
Use of animals in research						X
Use of hazardous substances						X
Research misconduct	X					
Publication practices and responsible authorship (including plagiarism)	X		X	X		
Mentoring & trainee responsibilities						X
Peer review (manuscript, grants)	X		X	X		
Collaborative research			X	X		
Personnel management						X
Financial stewardship (grants management)						X

Student Initiated Program Projects in RCR and SI at Columbia

- Applied Math and Applied Physics (*“Preventing Cheating”*)
- Biological Sciences (*“Ethics in Communicating Science to Non-Academic Audiences”* and *“Roles and Responsibilities of Advisors, Supervisors, and Mentors”*)
- Biomedical Informatics (*“Organizing Your Mentor for Effective Survival Skills Training”*)
- Cellular, Molecular, Structural, and Genetic Studies (*“Intellectual Conflict of Interest in Peer Review”*)
- Chemical Engineering (*“Communication and Conflict in Mentoring Relationships”*)
- English (*“Research and Publishing Practices”*)
- French (*“Mentoring”*)
- Genetics and Development (*“Data Management and Ownership”*)
- Philosophy (*“Publishing Practices”*)
- Political Science (*“Supervision and Mentoring”*)
- Slavic (*“Authorship and Collaborative Scholarship”*)
- Sociology (*“Advising, Supervising, and Mentoring Relationships”*)

Funding for Faculty

RFPs for Faculty

Grants of \$1,000 are available to faculty who wish to revise an existing graduate course (or to create a new one) to include a focus on scholarly integrity and the responsible conduct of research. Faculty may use the funds in various ways, including but not limited to supporting a graduate student/TA to assist in course re-design or development, identifying resources, preparing lectures and class activities, etc. Proposals will be accepted throughout the year. (Send to PSI@columbia.edu).

Funding for Programs

RFPs for Departments

Grants of up to \$1,500 are available to departments to bring speakers to Columbia to present on RCR-related topics. To request funds please send a proposal (to PSI@columbia.edu) identifying the speaker, date, title and content of the presentation. Please include links to any published papers or video of presentations that will help the committee determine the relevance of the presentation to supporting RCR and PSI training. Applications will be accepted throughout the year.

GSAS RCR/PSI Training Workshops, 2009-2010

- Ethical and Legal Issues in Teaching
- Authorship, Credit, and Collaborative Scholarship and Research: Ethical Pitfalls to Avoid
- Intellectual and Other Conflicts of Interest: Your Rights and Responsibilities
- Intellectual Property Rights, Copyright, and Fair Use in Teaching and Research
- Data Integrity and Management: Avoiding Problems and Pitfalls
- Who Owns Your Research and Scholarship? Ethics of Data and Research Ownership
- Ethical Issues in Access and Use of Scholarly Materials
- Ethics in Animal Care and Use
- Informed Consent and Assent with Children
- Informed Consent with Special Populations
- Avoiding Research Misconduct with Images and Statistical Reporting



Challenges

- Not all programs have heightened awareness of the need for RCR/PSI training for their students.
- There are fewer print, on-line, and people resources available for RCR/PSI training in the humanities.
- The need for RCR training is larger than our GSAS resources for doing so.



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<http://www.columbia.edu/cu/gsas/sub/project/research/main/>

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