Responsible Conduct of Research, Scholarship, and Creative Activities

The MSU Way- RCR education makes for quality research
MSU History with RCR

- Recognized Nationally as a leader in RCR

- Michigan State University,
The Pennsylvania State University,
University of Wisconsin-Madison

Project Summary
PSU Web Portal: Scholarly and Research Integrity (SARI)
What do you think and know?

- **Climate Survey:** how well do you know your immediate community wrt RCR?

  (Brian Martinson and Carol Thrush)

- ~12,000 respondents total between PSU, MSU and UW-Madison.

  “How able are people in your dept/program to define research misconduct?”

Where we started:

Institutional Approaches to Research and Scholarly Integrity, Karen Klomparens

What we learned...

• “People aren't talking much about research integrity in their units, Klomparens concludes from some of the survey results. And that's unfortunate, Pivarnik (our RIO) adds, since communication up front helps prevent the kinds of misconduct problems that end up in his office. Plagiarism is the most common allegation he hears, with fabrication and falsification of data not far behind.”
Where you can find the survey...

- https://sites.google.com/site/surveyoforgresearchclimate/
What are you making available?

- **Inventory Survey**: What are your units doing to make RCR education accessible, a part of every day life?
Is there a department/program committee with responsibility for facilitating the education of all departmental personnel on RCR and creative/scholarly activities?

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<tr>
<th>Response</th>
<th>Response Percent</th>
<th>Response Count</th>
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<td>21.9%</td>
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<tr>
<td>No</td>
<td>56.2%</td>
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<td>19.2%</td>
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<tr>
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<tr>
<td>Not applicable to this department/program</td>
<td>1.4%</td>
<td>1</td>
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</table>

If yes, name and role; if planning, include a brief description and implementation date

answered question 73
skipped question 0
Is information about RCR and creative/scholarly practices included on your Departmental/program website?
Does your dept promote discussions of difficult subjects regarding RCR and Creative integrity through courses, workshops and seminars?
I will give you this survey.

dattss@msu.edu
The Act mandates new proposal requirements such as a mentoring plan for all postdoctoral positions (Sec. 7008), that each institution receiving NSF funds for STEM research or education have a plan to provide training on the responsible conduct of research to undergraduates, graduate students, and postdoctoral researchers (Sec. 7009), and the sharing of final project reports (Sec. 7010, 7011).
THE REQUIREMENTS (NSF)

- Minimum of five (5) hours of initial education
- Education MUST NOT BE TOTALLY online.
- There MUST be face to face discussions
- Education must be documented
- Education must be renewed (min of 3 hours) PER YEAR.
NIH and RCR

- This Notice applies to all NIH Institutional Research Training Grants, Individual Fellowship Awards, Career Development Awards (Institutional and Individual), Research Education Grants, Dissertation Research Grants, or other grant programs with a training component that requires instruction in responsible conduct of research as noted in the Funding Opportunity Announcement.
While on-line courses can be a valuable supplement to instruction in responsible conduct of research, online instruction is not considered adequate as the sole means of instruction. A plan that employs only online coursework for instruction in responsible conduct of research will not be considered acceptable, except in special instances of short-term training programs (see below), or unusual and well-justified circumstances.
Bottom line

Education in RCR cannot be a passive exercise
Responsible Conduct of Research @ MSU

1. Data management
2. Conflict of interest
3. Protection of human subjects
4. Animal welfare
5. Research misconduct
6. Publication and authorship
7. Mentor/trainee responsibilities
8. Peer review
9. Collaborative science
10. Intellectual property
11. Plagiarism

RCR topics identified by the U.S. Office of Research Integrity (ORI)

Additional MSU topics
Doing the right thing

Office of the Vice President for Research and Graduate Studies,
Co-signed by the Provost 10-13-2009

While units which seek and receive NSF funding are now responsible for ensuring and documenting that the necessary training and education will be done for students and postdoctoral researchers supported by NSF grants, we ask and expect that all MSU academic units participate in the activities related to implementation of the NSF requirements. We believe that teaching students and trainees about responsible practices in research, scholarship, and creative activities is also of vital importance to the reputations and quality of units which do no NSF-sponsored research.
“Draft program/unit plans for current and planned formal education and training in the responsible conduct of research must be submitted to and approved by the appropriate collegiate Dean’s office.”
MSU RCR Plans

- http://grad.msu.edu/researchintegrity/rcrplans.aspx
Graduate Handbooks are KEY

- Each graduate degree-granting unit is required to incorporate into their graduate handbooks specifics on "Guidelines for Graduate Student Advising and Mentoring Relationships" and "Guidelines for Integrity in Research and Creative Activities." Implementing these recommended guidelines remains a priority.

http://grad.msu.edu/departmentalhandbook/
What we do to help – RCR Series

- Evening RCR Series for ~150-200 Biomedical students. Pharmacology is a long term player.
- This is REQUIRED by some programs (including Pharmacology) and encouraged by others.

http://grad.msu.edu/
### RCR Series 2011-2012

**Session I: Being an Early Career Scholar**  
*Tuesday, September 14, 2011*  
*Room 103 (Kiva) Erickson Hall*  

As a training scholar, it is important for you to know the expectations of your mentor and community, as well as understand the rights and responsibilities you have as a trainee. This session will highlight Rights & Responsibilities of Graduate Students, the Research Mentoring Task Force Report at MSU (2004), and the importance of communication in every facet of your career. The primary principles covered within this session are communication and mentor/mentee responsibilities.

**Session II: Authorship**  
*Tuesday, October 5, 2011*  
*Room 103 (Kiva) Erickson Hall*  

Publication of a scholarly work makes you an author. This session will be dedicated to understanding the definitions and disagreements (a live debate) about what constitutes an author, how conflicts are resolved, how to avoid such conflicts, and where/whom to go for help about authorship issues. The primary principles covered within this session are authorship and conflict resolution.

**Session III: Plagiarism**  
*Tuesday, October 26, 2011*  
*Room 103 (Kiva) Erickson Hall*  

Plagiarism – stealing the work of another – is an increasing problem in the scholarly community. At MSU, this ranks as the #1 allegation of research misconduct. This session will aim to help you understand what plagiarism means, how to test for it within your own work, how to discuss plagiarism, and where to go for advice on plagiarism. The primary principles covered within this session are plagiarism and conflict resolution.

**Session IV: Data Management**  
*Wednesday, November XX, 2011*  
*Room 103 (Kiva) Erickson Hall*  

At the heart of what you do as a scholar are data. The gathering, use of, and ownership of data are critical to understand. This session will discuss the diversity of what data can be, who controls, owns and can share your data. We will also discuss practical means to protect your data. The primary principle covered within this session is data management.

**Session V: Research Misconduct – The Spectrum**  
*Thursday, January 13, 2012*  
*Room 103 (Kiva) Erickson Hall*  

Conduct in research runs a spectrum, from that performed with integrity to true research misconduct. Accusations of misconduct are incredibly serious, and the consequences grave. This session will help you understand the spectrum of behaviors while carrying out research, and will provide examples of frank research misconduct. We will also share practices to learn to avoid research misconduct, and to whom one should go if you have concerns about your own or other research. The primary principle covered within this session is research misconduct.

**Session VI: Use of Animals in Research**  
*Thursday, January 20, 2011*  
*Room 103 (Kiva) Erickson Hall*  

In conducting your research, you may propose to use animals or humans. These sessions will help you understand the requirements – both at the level of MSU and federal government – that you must fulfill to be able to use either human or animal subjects in your research, and how to fulfill these requirements practically. Everyone is invited to both sessions, but individuals need only attend one according to their personal interest/professional need to receive the certificate of completion. The primary principles covered within this session are use of animals in research, and use of humans in research.

**Session VII: Conflict of Interest, Peer Review and Collaboration by Team Work**  
*Tuesday, February 17, 2011*  
*Room 103 (Kiva) Erickson Hall*  

Research is an increasingly complex endeavor, and one rarely works in isolation. This session will help you understand and appreciate what a ‘conflict of interest’ is, that they occur in many situations and are manageable. We will discuss conflicts within the context of peer review, an important duty for all members of the scholarly community. The primary principles covered within this session are conflict of interest, peer review and collaboration.
Session I: Being an Early Career Scholar

PRIOR HOMEWORK:
* Know how to FIND R & R, AAMC and MSU Mentoring Report on MSU

TOPICS:
* Rights & Responsibilities as a GS
* AAMC Biomedical Compact
* 2004 MSU Mentoring Report
* COMMUNICATION
* Mentoring: a two way street
* MSU Climate Survey Results

Speakers:
* Karen Klomparens, Dean of The Graduate School (R & R, Mentoring)
* COMMUNICATION – past graduate student, mentor/mentee

Learning Objectives:
* Understand MSU’s “Guidelines for Graduate Student Advising and Mentoring Relationships.”
* Explain three key provisions of MSU’s “Graduate Student Rights and Responsibilities”.
* Explain at least five interests and five responsibilities for both trainees and mentors in your situation.
* List your key expectations for the chair of your thesis/dissertation graduate committee.
* List your key expectations for faculty who provide short-term oversight of work leading up to your thesis/dissertation research/scholarship.
* Understand the priority goal(s) of your research/scholarly and how your work contributes to their attainment.
* Appreciate that communication with your mentor is a critical part of success.
* Know the office or offices at MSU that can assist in understanding graduate student rights and responsibilities.
* Know where to go if you have questions.
Music:
• Read Me My Rights
  (Dalton Reed, Delbert McClinton)
• Talk to Me (Anita Baker)
• R-E-S-P-E-C-T
  (Aretha Franklin)

Video:
• Inconvenient timing
• The Lab Video
• On the dotted line
• Promises, Promises

Follow-up Talking Points with your department:
Do you have a mentoring plan within your department/lab/research group?
What we do - Resources

- At grad.msu.edu, Research & Scholarly Integrity Resources available to anyone – free to modify!

- [http://grad.msu.edu/researchintegrity](http://grad.msu.edu/researchintegrity/)

- Includes:
  - PowerPoint files on ORI Principles
  - Videos
  - Case studies
  - Posters
  - Role Playing Exercises
GO TO WEBSITE!
MSU Principles for Scholarly Integrity
Recognition
Give credit where credit is due

Honesty  Recognition  Confidentiality  Disclosure  Compliance  Protection  Collegiality  Communication
MSU Principles for Scholarly Integrity

Confidentiality

Respect intellectual property

Honesty  Recognition  Confidentiality  Disclosure  Compliance  Protection  Collegiality  Communication
MSU Principles for Scholarly Integrity

Research Integrity Matters
Research Integrity Council

Disclosure
Report potential conflicts of interest

Honesty  Recognition  Confidentiality  Disclosure  Compliance  Protection  Collegiality  Communication
MSU Principles for Scholarly Integrity

Protection

Respect research participants

Honesty  Recognition  Confidentiality  Disclosure  Compliance  Protection  Collegiality  Communication
MSU Principles for Scholarly Integrity
MSU Principles for Scholarly Integrity

Communication

Talk and listen

Honesty  Recognition  Confidentiality  Disclosure  Compliance  Protection  Collegiality  Communication
What we do - Tracking

- College of Engineering has devised a registration system such that the training of each student can be tracked and a report generated.
GO TO COE Validating system

- https://www.egr.msu.edu/test/secureresearchcourses/
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<th># Hours</th>
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Major Professor Signature: ________________________________ Date: ____________

Student/Post-Doc Signature: ________________________________ Date: ____________
What we do – help remember WHY

- Reprint and FLOOD the campus of MSU with a vital piece of MSU history

- **Guidelines for Graduate Student Advising and Mentoring Relationships**
- **Guidelines for Integrity in Research and Creative Activities**

Research Integrity, Vol 7 No 2 Spring 2004

http://grad.msu.edu/researchintegrity/newsletters.aspx
What we do - ENCOURAGE

- Active learning
- Mentor engagement
- Student accountability
- Pride in research
Permission is granted to use or modify this presentation to support education about the responsible conduct of research, scholarship, and creative activities. Users are expected to cite this source.