SBU Policy for the Responsible Conduct of Research and Scholarship (RCRS)

October 2010
What is RCR?

- Responsible Conduct of Research
  - critical to the promotion of ethical behavior and prevention of scientific misconduct

- involves more than fabrication, falsification, and plagiarism

- requires practices that ensure the:
  - trustworthiness of research findings
  - propriety of the methods used
  - legality and ethicality of the systems that support the research

Anderson et al., Acad Med. 2007 Sep;82(9):853-60.
Why the Push from Federal Sponsors?

Table 9: Research Misconduct Activity, 1993-2008

<table>
<thead>
<tr>
<th>Year*</th>
<th>Institution Reporting Activity</th>
<th>New Allegations</th>
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<tbody>
<tr>
<td>2007</td>
<td>130</td>
<td>183</td>
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<td>1993</td>
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</tbody>
</table>

* The year 2007 is a record of what institutions submitted in their 2008 Annual Report.

“130 institutions reported 183 new or continuing research misconduct activity in their 2007 Annual Report on Possible Research Misconduct”

“This is a 15% increase over 2006 and is almost 2x more activity than in 1993.”
While Stony Brook already has a culture of responsible conduct in research and scholarship, it is important to sustain and enhance this legacy by making it part of our common culture across the entire campus community through active training.

SBU adheres to professional practices that comprise scholarly and research integrity and fosters, actively endorses, and participates in the instruction in RCRS for all individuals (includes faculty, students and staff, regardless of status, discipline, or source of funding).
SBU RCRS Policy

ONLINE INSTRUCTION
• Selection of 1 topic to examine in-depth (not the animal or human research modules) in a relevant RCR module discipline set (i.e., biomedical, social behavioral, physical science, humanities, engineering) within the web-based Collaborative Institutional Training Initiative (CITI)
  • A passing grade of 80% must be achieved on the quizzes taken at the end of these modules.

FACE TO FACE INSTRUCTION
• Discipline-specific, to be designed by each department/school
• Each individual must complete 8 face to face hours once every 4 years

– Suggested format (departments may design their own RCRS methods for training of faculty):
  • 25-30 minute lectures to introduce the topic, combined with:
    • small group break-out sessions to apply the principles outlined in the lecture to relevant case studies
  • Faculty can teach the lectures and should participate in the break-out sessions
  • Attendance and participation is required at all sessions
SBU RCRS Policy

• **RCRS RECERTIFICATION**
  • Once every four years

• **TRACKING AND REPORTING ON RCRS**
  • After successful completion of the course, the departmental/school RCR coordinator will enter the requisite information into the centralized web-based eRCRS database housed on the RCRS webpage (maintained by the Office of the Vice President for Research)

http://www.stonybrook.edu/research/orc/rcr/index.shtml
RCRS content can include training in:

- **scientific and academic misconduct** (fabrication, falsification, and plagiarism) and university policies for handling misconduct
- **mentor/mentee responsibilities and relationships**
- **responsible authorship and peer review**
- **data acquisition and laboratory tools; management, sharing and ownership**
- **conflict of interest** – personal, professional, and financial
- **human subjects, live vertebrate animal subjects in research, and safe laboratory practices**
- **research involving collaborations, internal and external to the University**
- **the scientist as a responsible member of society, contemporary ethical issues, and the environmental and societal impacts of scientific research**
Additional tools that may be used for RCRS training

- Departmental faculty meetings
- Departmental journal clubs
- Laboratory meetings
- Departmental/School/College Retreats
- Departmental Research Day
- Experiential research programs for graduate and undergraduate students—laboratory rotations
- Training sessions offered by Institutional Review Boards, Institutional Animal Care and Use Committees, and Institutional Biosafety Committees
- Orientation sessions for new faculty, postdoctoral fellows and graduate and undergraduate students
- Institution-wide lectures or discussion series
- Activities sponsored by graduate student and postdoc organizations
- Other venues??
Roles and Responsibilities for RCRS

• Academic: Colleges/Schools/Departments/PIs
  – RCRS training program methods
  – RCRS training program content for each “group”
  – Department by department RCRS training programs
  – Follow through to ensure RCRS trainee Certification/Recertification

• Administrative Compliance: Office of the Vice President for Research
  – Educating faculty and researchers about SBU RCRS Policy
  – Record keeping and coordination of electronic materials
  – Database of “certified” trainees
  – Verification of certification with PIs/Departments
  – Assurances to federal government
  – Audit of charges to sponsored awards
Possible Federal Actions for Non-compliance with RCRS

• Institutional
  – Letter of Reprimand
  – Disallowance of costs
  – Fines/restitution
  – Federal-wide debarment

• PI specific
  – Ban from serving as reviewer
  – Mandatory ethics training
Mandate from Federal Sponsors

- **National Science Foundation (NSF)** – Section 7009 America COMPETES (Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science) Act
  - “Each institution that applies for financial assistance from the Foundation for science and engineering research or education must 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.”

- **Proposal and Award Policies and Procedures Guide (PAPPG)**
  - Effective January 4, 2010 authorized signatory must certify with every proposal that institution has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to **undergraduates, graduate students, and postdoctoral researchers** who will be supported by NSF to conduct research
    - Standard award conditions - Institution responsible for verifying that undergraduate students, graduate students, and postdoctoral researchers supported by NSF to conduct research have received RCR training
    - Training must occur within period of performance, typically 1 year (exception: summer REU, training must occur in 3 summer months)
Mandate from Federal Sponsors

- National Institutes of Health
  - Grant Proposal Guide (GPG)
    - All trainees, fellows, participants, and scholars receiving support through any NIH training, career development award (individual or institutional), research education grant, and dissertation research grant must receive instruction in RCR.

- Effective for new and renewal applications submitted on or after January 25, 2010, and for all non-competing continuations (Type 5) applications with deadlines on or after January 1, 2011.

- Applies to: D43, D71, F05, F30, F31, F32, F33, F34, F37, F38, K01, K02, K05, K07, K08, K12, K18, K22, K23, K24, K25, K26, K30, K99/R00, KL1, KL2, R25, R36, T15, T32, T34, T35, T36, T37, T90/R90, TL1, TU2, and U2R

- Any other NIH-funded programs supporting research training, career development, or research education that require instruction in RCR per relevant funding opportunity announcement
Mandate from Federal Sponsors

• National Institutes of Health
  – Guidance for training (NOT-OD-10-019*)
    • Format:
      – Substantial face-to-face discussions - a combination of didactic and small-group discussions (e.g. case studies)
      – Participation of research training faculty members in instruction in responsible conduct of research are highly encouraged.
      – 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.

• Subject Matter:
  – conflict of interest – personal, professional, and financial
  – policies regarding human subjects, live vertebrate animal subjects in research, and safe laboratory practices
  – mentor/mentee responsibilities and relationships
  – collaborative research including collaborations with industry
  – peer review
  – data acquisition and laboratory tools; management, sharing and ownership
  – research misconduct and policies for handling misconduct
  – responsible authorship and publication
  – the scientist as a responsible member of society, contemporary ethical issues in biomedical research, and the environmental and societal impacts of scientific research
Mandate from Federal Sponsors

- **National Institutes of Health**
  - Guidance for training (NOT-OD-10-019*)
    - **Faculty Participation:**
      - Training faculty and sponsors/mentors are highly encouraged to contribute both to formal and informal instruction in responsible conduct of research.
    - **Duration of Instruction:**
      - Instruction should involve substantive contact hours between the trainees/fellows/scholars/participants and the participating faculty.
      - Acceptable programs generally involve at least eight contact hours.
    - **Frequency of Instruction:**
      - Reflection on responsible conduct of research should recur throughout a scientist’s career: at the undergraduate, post-baccalaureate, predoctoral, postdoctoral, and faculty levels.
      - Instruction must be undertaken at least once during each career stage, and at a frequency of no less than once every four years.

RCR Resources

- http://grants.nih.gov/training/extramural.htm
- The National Academy Press has just published the 3rd. edition of the classic, On Being a Scientist, and is available online at http://books.nap.edu/catalog.php?record_id=12192.
- NSF Federal Register Notice on RCR Implementation: Federal Register Notice of August 20, 2009 (Volume 74, Number 160)
- NPA RCR Toolkit: http://www.nationalpostdoc.org/rcr-toolkit
- ORI's RCR Education Materials Clearinghouse http://ori.dhhs.gov/education/products/
- Collaborative Institutional Training Initiative (CITI), www.CITI.org