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JOHNS HOPKINS
BLOOMBERG
SCHOOL *of* PUBLIC HEALTH

Section C

Responsible Conduct of Research

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Integrity in Scientific Research

- Creating an environment that promotes responsible conduct (2002)
 - “For the individual scientist, integrity embodies above all a commitment to intellectual honesty and personal responsibility for one’s actions . . .”

Practices Characterizing Responsible Research

- Intellectual honesty in conceiving, conducting, reporting research
- Protection of human subjects and humane care of research animals
- Accuracy in representing contributions
- Transparency in reference to conflicts of interest

Misconduct in Research

- Fabrication of data
- Falsification of data
- Plagiarism
- Does NOT include . . .
 - Errors in judgment or reporting
 - Other types of misconduct (sexual, financial)

Questionable Research Practices

- Failing to retain data
- Maintaining inadequate records
- Inappropriate authorship
- Refusing to share data
- Exploiting subordinates

Plagiarism and Misappropriation of Intellectual Property

- “. . . ORI considers plagiarism to include both the theft or misappropriation of intellectual property and the substantial unattributed textual copying of another’s work. It does not include authorship or credit disputes.”
- “. . . theft or includes the unauthorized use of ideas or unique methods obtained by a privileged communication, such as a grant or manuscript review.”

Research Integrity Is Essential in Four Areas

1. Handling of data:
 - Acquisition, management, and storage
2. Communication/publication of findings
3. Correction of errors
4. Mentoring and training of others

Misconduct

- Why does misconduct occur?
- What are the consequences of scientific misconduct?

Why Do We Care? Why Is Misconduct a Problem?

- Undermining of science
 - Mistrust by the public of the research findings and of researchers more broadly
 - Incorrect data driving practice and policy
 - ▶ Retraction/correction
- Morally, it is wrong

Mechanisms to Prevent Misconduct

- Personal integrity
- Peer review; reproducibility of results
- Publishing sanctions (journal's internal "list of shame"—cannot publish or be referenced)
- Role modeling, mentoring, training
- Whistle-blowing (rare)
- Regulations: 1985
 - Institutions receiving federal funds must have administrative process to review allegations of fraud

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Consequences

- Individual and institutional consequences
 - Letter of reprimand
 - Suspension of grant
 - Inability to receive further funding
 - Loss of job by institution