RCR - Responsible Conduct of Research

Responsible Conduct of Research

RCR

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RCR - Responsible Conduct of Research

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The National Science Foundation (NSF) and other federal funders require the universities they fund to provide training in research ethics.
RCR - Responsible Conduct of Research

CUNY policy...

CUNY policy on training in responsible conduct of research

CUNY policy for disposition of allegations of research misconduct

Research Integrity Officers

http://www.cuny.edu/research/compliance/Responsible-Conduct-of-Research.html
RCR - Responsible Conduct of Research

Our topics:

- Research Misconduct
- Protections
- Conflicts of Interest
- Mentoring
- Authorship credit
- Peer Review
- Data Management
- Collaborative Research
- Export Controls
RCR - Responsible Conduct of Research

- Compliance
  - Requirement
    - Regulation
  - Standard
  - Laws
  - Terms
  - Transparency
  - Guidelines
  - Rules
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e.g. Federal regs

Compliance

Requirement

Regulation

Standard

Laws

Terms

Guideline

Transparency

Rules
RCR - Responsible Conduct of Research

- Compliance
  - Regulation
  - Standard
  - Requirement
  - Rules
  - Guideline
  - Transparency
  - Terms
  - Laws

Examples:
- Federal regs
- State regs
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Compliance

- Requirement
- Regulation
- Standard
- Laws
- Rules
- Guideline
- Terms
- Transparency

E.g. Federal regs
State regs
Sponsor requirements
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Institutional policies

E.g. Federal regs

State regs

Sponsor requirements

Compliance

Requirement → Regulation

Standard → Terms

Laws → Laws

Rules → Guideline

Transparency
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- Reporting requirements
- Requirement
- Regulation
- Standard
- Laws
- Rules
- Terms
- Guideline
- Transparency
- Sponsor requirements
- State regs
- Institutional policies
- e.g. Federal regs

fau.edu
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- Institutional policies
- Reporting requirements
- Your research community
- e.g. Federal regs
- State regs
- Sponsor requirements

Compliance

Requirements
- Regulation
- Standard
- Laws
- Terms
- Transparency
- Guidelines
- Rules
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- Reporting requirements
- Institutional policies
- Your research community
- e.g. Federal regs
- State regs
- Read guidelines
- Be aware of expectations
- Sponsor requirements

Compliance

Requirement

Regulation

Standard

Rule

Guideline

Transparency

Laws

Terms
**RCR - Responsible Conduct of Research**

- **Reporting requirements**
- **Institutional policies**
  - e.g. Federal regs
- **Your research community**
  - State regs
- **Guideline**
- **Compliance**
  - **Regulation** → **Requirement** → **Standard**
  - **Rules** → **Guideline**
  - **Transparency**
    - **Laws** ← **Terms**
    - **Full communication**
    - **Transparency in interactions**
  - **Read guidelines**
  - **Be aware of expectations**
  - **Sponsor requirements**
Researchers and research institutions must conduct research in a way that is **honest, trustworthy, reliable and accountable**. That’s ideal.

*Misconduct* is the worst possible behavior by a researcher.

Behavior that falls in between is referred to as *questionable research practices* (QRP)
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p-hacking (re-analyzing data in different ways to yield a target result)
Unethical authorship
Unethical publication practices BAD
Noncompliance with university policies
Violating privacy and/or confidentiality rules and/or agreements
Non-compliance with sponsor-related requirements
Excluding data
Unethical peer review
Misappropriation of research funds
Delaying or impeding work of collaborators
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Non-compliance with human subjects and/or animal requirements

Citing selectively or expanding bibliography unnecessarily

Misusing authority

Inadequate record keeping

Selective transparency of hypotheses

Conflicts of interest mismanagement (financial and/or commitment)

HARKing (hypothesis after results are known)

Non-compliance with reporting/or registry requirements
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Ideal Behavior

GOOD

- sound research design and methodology
- reproducibility
- conscientious data management
- appropriate authorship
- appropriate mentorship
- appropriate use of funds
- disclosing conflicts of interest
- managing conflicts of commitment
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Ideal Behavior

GOOD

RCR also requires that researchers behave in an ethical manner, i.e. use sound ethical judgement that promotes trust, and that research is conducted with integrity, i.e. consistently doing the right thing.
Research Misconduct - 1

Fabrication
Making up data or results, and recording or reporting them

Falsification
Manipulating research materials, equipment or processes, or changing or omitting data or results, such that the research is not accurately represented in the research record

Plagiarism
Appropriation of another person’s ideas, processes, results or words without giving appropriate credit
Research Misconduct - 2

A finding of research misconduct requires that:

- There be a significant departure from accepted practices of the relevant research community (i.e. the humanities, social sciences, or scientific research community);
- the misconduct be committed intentionally, or knowingly, or recklessly; and
- the allegation be proven by a preponderance of evidence.
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Some temptations to commit misconduct

- Publish or perish pressures
- Need to obtain research funding
- Seeking promotion
- Reputational motivations
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It's not worth it!
The federal Office of Research Integrity (ORI) may impose a variety of penalties when a finding of research misconduct is upheld. These penalties may include:

- Correction of the research record.
- Letters of reprimand.
- Suspension or termination of a research grant.
- Suspension or debarment from receiving federal funds.

Researchers who commit research misconduct may face significant professional stigma as well as corrective actions from employers.
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Making an Error

A role-play
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Self-Plagiarism
A role-play
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Protections: Animal Welfare

Humane treatment of animals used in research and educational activities

- Institutional Animal Care and Use Committees (IACUC)
- Veterinarians, animal facilities staff, & IACUC administrators
Protections: Biosafety

Environmental Health, Safety & Risk Management

• Policies and procedures regarding laboratory safety, hazardous materials, health safety & radiation safety

http://www.cuny.edu/about/administration/offices/ehsrm.html

College specific Institutional Biosafety Committees (IBC)

• Recombinant DNA & gene therapy research
• Risk group 2 or higher infectious agent use
• Use of transgenic animals
Protections: Human Subjects – 1

HRPP = Human Research Protection Program

IRB = Institutional Review Board

Review of your protocol is required when:

• Activity involves research (systematic investigation for generalizable knowledge); and

• Activity involves human subjects (living individual about whom data is collected through intervention or interaction; or private identifiable information is collected); and

• CUNY is engaged
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Protections: Human Subjects - 2

CUNY Human Research Protection Program (HRPP)

- HRPP Coordinators / IRB Administrators (Research Compliance Administrators) on each campus.

Rebecca Banchik, GC Dir, HRPP

- University Integrated (UI) Institutional Review Boards (IRB)

- http://www.cuny.edu/research/compliance/human-subjects-research-1.html
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Sensitive Data Collection
A role-play
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Conflicts of Interest

Financial Conflict of Interest

- CUNY policy, procedures and disclosure forms at http://www.cuny.edu/research/compliance/conflictofinterestpolicy.html

Conflict of Commitment

- Relationships with individuals or entities
- Use of resources / funds
- Honor time commitments made

College Conflicts Officers
CUNY Conflicts Committee
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Mentor / Trainee Responsibilities

• Proactively set expectations
• Clarify evaluation criteria
• Clear distribution of responsibilities
• Standard operating procedures
• Criteria for establishing authorship & ownership
• Awareness of and compliance with institutional requirements
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Competing Interests

A role-play
Responsible Authorship

Who should be an author?

- Made significant contributions to the research
- Assumed responsibility for data collection & analysis
- Participated in drafting the publication
- Approved the final publication

Improper practice

- Honorary authorship
- Duplicate publication
Peer Review

Responsibility

• Assess project for quality
• Make judgment regarding importance of research

Responsible Conduct

• Timely review
• Constructive feedback
• Free from personal bias
• Maintain confidentiality
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Authorship
A role-play
Data Management

Data Ownership

• Funding source – grants vs. contracts
• Institutional policy
• CUNY Intellectual Property Policy: http://www.cuny.edu/about/administration/offices/la/intellectual_property_9.20.11.pdf

• Data Source

Data Collection

• Data recorded such that it can be validated
• Appropriate authorization
**Data Protection**

- Proper storage to avoid accidental damage, loss or theft
- Confidentiality & privacy agreements honored
- Data retention according to contract &/or institutional practice
- CUNY use of computer resources policy: [http://www.cuny.edu/about/administration/offices/CIS/policies/ComputerUsePolicy.pdf](http://www.cuny.edu/about/administration/offices/CIS/policies/ComputerUsePolicy.pdf)

**Data Sharing**

- We may enter into various types of data sharing agreements (data use, data transfer, etc.)
  
  [http://www.cuny.edu/research/compliance/Research-Agreements.html](http://www.cuny.edu/research/compliance/Research-Agreements.html)
Collaborative research - 1

Roles & Relationships

• Define each collaborator’s role in the project in a written agreement
• Ensure common understanding of the research goals
• Be familiar with each institution’s intellectual property & ownership policies

Management Plan

• Financial Management
• Training & Supervision
• Compliance
Collaborative Research - 2

Formal Agreements

• Contact research compliance staff prior to signing these

• Ensure that your collaboration is documented in a formal Agreement

• Examples include: Memorandum of Understanding; Memorandum of Agreement; Material Transfer Agreement; Data Transfer Agreement

• Signatory authority defined by policy:
  http://www.cuny.edu/research/research-policies/Signatory-Authority.html
Export Control – 1

Controls

State, Commerce & Treasury Controls

• Hardware, software, materials, equipment, technology & technological data that have **civilian and inherent military or defense application**

• Defense **articles** designed or modified for defense or military application without civil equivalent **and defense services**.

• Restricted **transactions**; for example, those with Cuba, Iran, Syria or Sudan
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Export Control – 2

CUNY policy, procedures, guidance & forms

http://www.cuny.edu/research/compliance/Export-Control.html

Export Control Administrators

Requirements

• Prior authorization or license may be required
• Screening of all parties involved
• Exceptions for fundamental research activities
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https://www.youtube.com/watch?v=x_MsPvgetxw

Research Integrity

Video

Produced by the University of Amsterdam, 2016
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Review:

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