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### Context: Accountability

- Who is accountable?
- To whom are they accountable?
- For what are they accountable?
- What are the consequences of failing to meet expectations?

Answer to each question has a legal aspect and frames the response to allegations



## Accountability Responsibility in Responsible Conduct of Research

- Prevention and Education
  - Explain expectations
  - Explain accountability process
  - Explain consequences of failure
- Detection and Resolution
  - Conduct fair process (fact finding)
  - Respect confidentiality
  - Impose balanced sanctions

# Subtitle: When Researchers Go Wrong





### Legal Aspects

- Definitions
- Framework
  - Allegation
  - Inquiry
  - Investigation
  - Adjudication

Based on Federal Register/Vol.65, NO.235 December 6, 2000, Research Misconduct Policy



## Allegation Must Conform to *Definitions*

#### Plagiarism

- Appropriation of another person's ideas, processes, results or words without giving credit
- Falsification of data
  - Manipulating materials, equipment or processes, or changing or omitting data or results
- Fabrication of data
  - Making up data or results and recording or reporting them

### Framework Principles

- Focus on addressing misconduct related to the conduct and reporting of research
- Includes misrepresentation of credentials or research capabilities
- Excludes mishandling of funds, safety violations, discrimination, harassment, authorship disputes, etc.
- Excludes ethical treatment of human or animal subjects



## Investigative Process: Phases of Response to Allegation

- Allegation
- Inquiry
- Investigation
  - Develop factual record
  - Assessment
    - Significant Departure from professional norm
    - State of Mind
    - Burden of Proof



- Decide on investigating body
  - Government agency or research institution
- Important: Confidentiality for all informants and subjects
  - Consistent with a fair process
  - Consistent with applicable laws
    - Privacy acts
    - Public accessibility acts

## Inquiry

 An assessment of whether an allegation has substance so that an investigation is necessary



### Investigation

- Development of a factual record
- Assessment of the record leading to:
  - Finding of misconduct in research;
  - Dismissal; or
  - Other action (e.g., criminal prosecution)



#### **Assessment**

- Significant Departure from Professional Norm
  - Based on community standards
- State of Mind: Intent
  - Intentionally, knowingly, or recklessly
- Burden of Proof
  - Preponderance of Evidence



#### U.S. Burden of Proof

- Reasonable doubt
- Clear & convincing
- Preponderance of the evidence\*
  [The balance of probabilities]

\*The standard is satisfied if greater than 50% chance that the proposition is true



### **Adjudication Criteria**

#### Focus on Seriousness of the Misconduct

- Degree of Intent knowing, intentional, reckless
- Pattern of Occurrence single event or pattern
- Impact on

research record, research subjects, other researchers, institutions, or the public welfare

## Range of Actions

- Correct the research record
- Letter of reprimand
- Special certifications to assure compliance
- Suspension or termination of current funding
- Debarment from all federal funding up to 5 years



#### **Appeal**

- Decisions separated from inquiry, investigation, and adjudication
- Based on rules
  - Timeliness criteria
    - To request an appeal
    - To make the final decision
  - Permissible reasons, e.g., factual errors



#### Separation of Phases

- Inquiry/ Investigation
- Adjudication
  - Corrective actions/sanctions decided
- Appeal

Reconsideration of adjudication decision



## Case Example Plagiarism: Theft of Idea

#### Allegation

A reviewer of an NSF proposal noticed that the principal investigator (PI), an established scientist, copied ideas and text from her proposal that had previously been submitted to a funding agency in another country (UK).



### Case Example

#### Development of Factual Record

- Complainant contacted to firmly establish substance of the allegation
- UK funding agency then contacted and provided official information
- Subject claimed a collaborative relationship (not confirmed by complainant)



### Case Example Facts

- NSF PI was a reviewer of the UK agency proposal
- Plagiarism was extensive and confirmed on proposal comparison
- University committee established that a central unique idea was stolen



### Case Example Conclusions

- Subject knowingly committed plagiarism
- University terminated the subject's contract, among other sanctions
- NSF made a finding of research misconduct
- NSF imposed two years debarment
- Subject location unknown



### Case Example Challenges

- Investigation difficult because the source document was a confidential proposal in UK
- UK funding agency had no internal process to pursue the violation
  - Initial reluctance to share source document
- Subject intercepted OIG initial inquiry letter to the Co-PI
  - Interception of letter was subject's self-protection
  - Investigation relied on non-secure communications



## International Challenges in Responding to Allegations

- No agreed upon legal framework to handle inquiries and investigations (e.g., common definitions, processes, standards)
- No structure for fact finding across international boundaries
- Currently dependent upon personal relationships, ad hoc knowledge, informal agreements



### International Challenges

- Plagiarism (theft of idea) by referees/peer reviewers
- Diverse community standards

Across scientific/engineering disciplines Across borders

Diverse collaborations

Across scientific/engineering disciplines Across borders



### International Challenges

- Differing explanations
  - Culture vs. Corruption
- Different systems of law
  - Controlling
- Different languages
  - Scientific vs. local



#### **Contact Information**

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