



Investigations & International Cooperation

Accountability Workshop in Science Funding
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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



Allegation

- 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).



Plagiarism or Piracy

“The Curse of Peer Review”





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 aka “Piracy”) 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



Facilitating International Research Misconduct Investigations

- Global Science Forum Committee (OECD) established 10/2007
- Purpose: To focus on investigating allegations of wrong-doing in international collaborations and to exchange best practices
- Co-chairs: Christine Boesz, USA
Nigel Lloyd, Canada



Next Action Items (3)

1. Create a network to provide policy and operational information for investigations
 - Working closely with ESF and UNESCO
 - Involve non-OECD nations



Next Action Items

- Develop a set of Principles to facilitate investigations
 - Clarify definitions of misconduct
 - Recommend criteria for starting an inquiry or investigation
 - Define outcome products



Next Action Items

3. Develop generic models/templates
 - A policy statement for science funding organizations
 - A clause to be used in international collaboration agreements



The Plan

- Meet again to discuss draft documents in September, 2008
- Report to GSF in October, 2008 for adoption
- Recommend implementation plan
 - To primary uses (funding institutions)
 - To scientific and other research communities



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