Experiences in Developing Research Integrity Structures

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Overall Challenge

• Develop policies academics and government agree upon and enforce that are applicable to:

  ➢ Responsible Professional Practices Education
    • Developed between 1989 and present
    • NSF and HHS Policies

  ➢ Research Misconduct and Questionable Research Practices
    • Developed between 1989 and 2000
    • OSTP Policy
Issues in Education and Outreach

- Are there common responsible professional practice (RPP) elements?
  - Conflicts of interest
  - Research misconduct
  - Authorship
  - Data handling
  - ?

- Are there unique risk factors for RPP?
  - Unique disciplinary issues (e.g. animals, humans)

- Who should be training?
  - Undergraduates, graduates, postdocs, PIs, administrators, foreign-trained ?

- What are the appropriate modes/methods for training?
  - Internet, classes, CDs ?

- How do you train the trainer and ensure Institution compliance iies?
Issues in Research Misconduct Policy Development

• What are the definitions of Research Misconduct and Questionable Research Practices?
  • Is Research Misconduct FFP?
  • Are Questionable Research Practices everything else?

• What are the key elements in an investigation?
  • Act meets the Definition
  • Standard for Level of Intent – Reckless
  • Assessment of Community Practices – Significant departure from accepted practices
  • Burden of Proof – Preponderance of Evidence
  • Assessment of Seriousness – For act and egregiousness
  • Assessment for evidence of a pattern
Further Issues in Research Misconduct Policy Development

- Fair, Timely, Fact- and Document- based, Objective
- Free of inappropriate bias
- Presumption of innocence
- Confidentiality and protections for subjects, informants, witnesses
- Discrete, separate phases: inquiry, investigation, adjudication, appeal
  - Consistent time frames
  - Report contents
  - Appropriate actions
- Integrated policies for Investigation, Appeal, and Grievance
- Utilize concepts of independence and referral between University and agency
- Similar actions to protect interests
Is there a serious problem?

Allegations Since 1998

*Normalized to 1998 research misconduct allegations

A 3x increase in allegations over 10 years

Total Research Misconduct Allegations Since 1998

- Plagiarism 74%
- Falsification 16%
- Fabrication 10%

Fold Increase in Number of Allegations

Year

Keys to an Effective National Framework

• Establish clear, simple concepts/definitions
• Get ‘buy in’ from all concerned parties
• Enforce expectations that all parties adhere to training and implementation
• Ensure fair and consistent application
• Consider Mutually Agreed Upon Procedures
  ➢ e.g.: Global Science Forum papers on:
    ▪ Best Practices for Ensuring Scientific Integrity and Preventing Misconduct
    ▪ Facilitating International Research Misconduct Investigations