

Experiences in Developing Research Integrity Structures

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Overall Challenge

- Develop policies academicians 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
 - > ?



- 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 ies?



Issues in Research Misconduct Policy Development

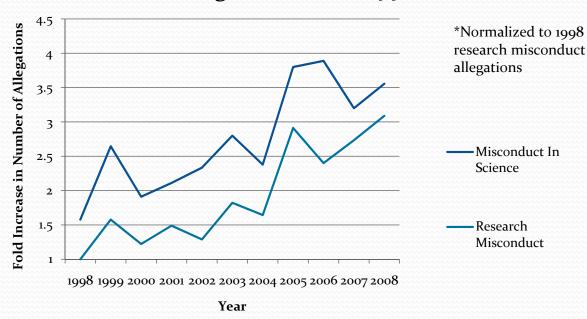
- What are the definitions of Research Misconduct and Questionable Research Practices?
 - Is Research Misconduct FFP?
 - Are Questionable Research Practices everything else?
- What are the key elements in an investigation?
 - Act meets the Definition
 - Standard for Level of Intent Reckless
 - Assessment 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

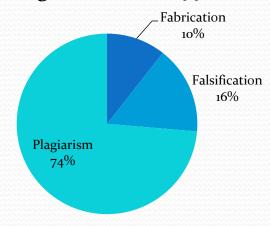
Is there a serious problem?

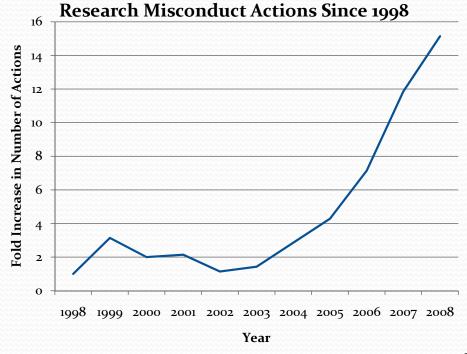
Allegations Since 1998



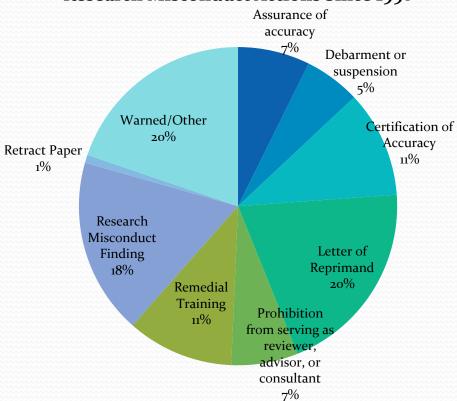
A 3x increase in allegations over 10 years

Total Research Misconduct Allegations Since 1998





Research Misconduct Actions Since 1998



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