

Research Misconduct and the Expanding Compliance Landscape

James Mohler, PhD

AVP for Scientific Integrity and Research Compliance, Purdue University

Alison Lloyd

Head of Research Governance, Quality and Integrity, Nottingham University Hospitals NHS Trust

Objectives

- Understand how research misconduct is defined in the UK and the US
- Discover how the federal definitions of integrity compliance are growing and changing in the UK and US



Research Integrity in the UK

Research integrity means conducting research in a way that allows others to have confidence and trust in the methods and findings of the research



Research Integrity in the US

Proposed:

§ 93.236 Research integrity. Research integrity refers to the use of honest and verifiable methods in proposing, performing, and evaluating research; reporting research results and maintaining the research record with particular attention to adherence to rules, regulations, and guidelines; and following accepted practices of the relevant research community.



Fundamental values (UK)

Rigour In line with disciplinary Norms, including in:

- Appropriate methods
- Following protocols
- Interpreting data
- · Drawing conclusions
- Disseminating results

Respect for everyone and everything involved in research, including:

- Colleagues
- · Other researchers
- Participants
- Animals
- · The environment

Honesty In all aspects of research, Including:

- Planning
- Methods
- Data collection
- Credit
- Reporting
- Interpretation



Transparency Promoting trust and confidence, including by:

- Reporting full methods
- Publishing all results
- Sharing data, code and materials
- Declaring conflicts of interest

Accountability
Of everyone involved in research, including:

- Researchers
- Institutions
- Funding bodies
- Publishers

UKRIO, 2023: www.ukrio.org



Fundamental Values (US)

- Objectivity the attitude of impartiality
- Honesty speaking and acting truthfully
- Openness being transparent and presenting all the information relevant to a decision or conclusion
- Fairness impartial and just treatment or behavior without favoritism or discrimination.
- Accountability an obligation or willingness to accept responsibility or to explain one's actions
- Stewardship the careful and responsible management of something entrusted to one's care



Research Misconduct Defined



Research Misconduct in the UK

- Fabrication;
- Falsification;
- Plagiarism;
- Failure to meet legal, ethical and professional obligations;
- Misrepresentation of data, involvement or interests;
- Improper dealing with allegations of misconduct.

Honest errors and differences in research methodology or interpretations do not constitute research misconduct



Research Misconduct in the US

 § 93.238 ... Research misconduct means fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.
 Research misconduct does not include honest error or differences of opinion.



Research Misconduct in the US

- § 93.213 ... Fabrication means making up data or results and recording or reporting them.
- § 93.214 ... Falsification means 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.



Research Misconduct in the US

- § 93.230 ... Plagiarism means the appropriation of another person's ideas, processes, results, or words, without giving appropriate credit.
 - (a) Plagiarism includes the unattributed verbatim or nearly verbatim copying of sentences and paragraphs from another's work, which materially mislead the reader regarding the contributions of the author.
 It does not include the limited use of identical or nearly-identical phrases which describe a commonly-used methodology.
 - (b) Plagiarism does not include self-plagiarism or authorship or credit disputes including disputes among former collaborators who participated jointly in the development or conduct of a research project. Self-plagiarism and authorship disputes do not meet the definition of research misconduct.



Issue Outside RM Policy

- Authorship disputes
 - Issues of credit, acknowledgement, citation
 - Relational disputes between co-authors
- Student-advisor relationship disputes
- Intellectual property disputes
- Conflicts of interest
- Human and animal research subject issues (IRB/PACUC)
- Detrimental Research Practices



Process of Addressing (US/UK)

- Process
 - Initial assessment/Receipt of Allegations
 - US: Proposed new limit of 30 days*
 - Inquiry Committee/Initial Investigation
 - US: Proposed ctte or individual*
 - Investigation Committee/Full investigation
 - US: Proposed new limit of 180 days*
 - Appeal/Appeal
 - Sanctions/Sanctions



Notable New Items (US)

- Proposed Items (non-exhaustive)
 - Many new definitions 48 (Subpart B—Definitions)
 - Subsequent use defined (§ 93.105 1-3)
 - Removal Evidentiary Standards (level of evidence and burden of proof)
 - Interviews must be transcribed (§ 93.105.g.1, & 5) and "respondent must not be present at interviews"
 - Requirements for Assessment results (§ 93.306)
 - Sequestration before notification (§ 93.305.a.1-2)
 - Honest error/negligence can only be determined in Investigation (§ 93.107)



Growth and Change in the Compliance Landscape



Growth and Change in the UK

- House of Commons Science and Technology Committee inquiry into Research Integrity (2018);
- House of Commons Science and Technology Committee inquiry into Reproducibility and Research Integrity (2023);
- Research Culture local and national initiatives to sustain and enhance a healthy research culture;
- Equality, diversity and Inclusion there is a greater focus on this across the research community from HEI's to funders;
- **Trusted research** protecting the UK's IP, sensitive research, people and infrastructure from potential theft.



Growth and Change in the US

Federal definition of Scientific Integrity

Scientific integrity is the adherence to professional practices, ethical behavior, and the principles of honesty and objectivity when conducting, managing, using the results of, and communicating about science and scientific activities. Inclusivity, transparency, and protection from inappropriate influence are hallmarks of scientific integrity.

NSTC/OSTP. A Framework for Federal Scientific Integrity Policy and Practice. Jan 2023



Growth and Change in the US

- Generative Al
 - Curious caution (accuracy, ownership, "the Borg Collective"), Transparency
- Research Security/Undue Foreign Influence
- Supportive and Safe Mentoring
 - Safety in all forms physical, mental, etc.
 - Knowing how to report
- Data Management Plans
- Comment on the NPRM Policies on Research Misconduct





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