Mastering Research Administration

A Complete Guide to the CRA®, CPRA®, and CFRA® Exams

Farin Kamangar, MD, PhD, CRA
University Distinguished Professor
Associate Vice President for Research
Morgan State University
Baltimore, MD, USA

Lulu Jiang, PhD
Program Administrator
National Transportation/SMARTER Centers
Morgan State University
Baltimore, MD, USA

Rebecca Steiner, CRA
Grants Manager
Office of Research Administration
Morgan State University
Baltimore, MD, USA

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Disclaimer:

- These multiple-choice questions and the accompanying text were originally developed in 2022 and were reviewed and updated in August 2025. Grant policies, rules, and regulations may change over time. Please consult official sources for the most current information.
- While it is generally considered best practice to avoid negative phrasing and answer choices such as “all of the above” or “none of the above” in standardized multiple-choice questions, these materials were created for training purposes. In some instances, we have intentionally used such formats.

Correspondence to: farin.kamangar@morgan.edu

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CHAPTER 12
Research Misconduct

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12.1. Introduction

Research Misconduct is defined by the U.S. Department of Health and Human Services (HHS) as fabrication, falsification, or plagiarism (FFP) in proposing, performing, or reporting research.

- **Fabrication**: making up results and recording or reporting them.
- **Falsification**: manipulating research materials, equipment or processes or changing or omitting results such that the research is not accurately represented.
- **Plagiarism**: appropriating someone else's ideas, processes, results or words without giving proper credit.

Note: Research misconduct does not include honest error or differences of opinion (42 CFR Part 93.103).

12.2. Research Misconduct Requirements

From 42 CFR 93:

> "A finding of research misconduct requires that—
>
> (a) There be a significant departure from accepted practices of the relevant research community; and
>
> (b) The misconduct be committed intentionally, knowingly, or recklessly; and
>
> (c) The allegation be proven by a preponderance of the evidence."

12.3. Investigating Research Misconduct within PHS

In the Public Health Service (PHS), research misconduct is primarily handled by HHS's Office of Research Integrity (ORI).

Steps of an investigation:

- An allegation is made to the institution's Research Integrity Officer (RIO).
- RIO assesses if it's credible, specific, and within the definition of misconduct.

- Ideally within a week, RIO determines whether to proceed.
- If yes, RIO informs the respondent/person accused in writing, and gains and sequesters evidence.
- An inquiry committee is appointed/referred to (if a standing committee).
- The inquiry committee has 60 days (extendable) to decide whether or not to investigate; an investigation may last up to 120 days.
- A report is drafted and sent to appropriate parties. A final report goes to the institution's Deciding Officer (DO).
- DO then decides to accept/modify/reject report findings and sets sanctions.
- Upon appeal, DO tells ORI and provides ORI with a copy of the report.
- ORI reviews report, evidence, and suggested sanctions. The Assistant Secretary of Health makes the final determination of PHS sanctions. It is then possible to appeal to the Administrative Law Judge.

12.4. Research Misconduct within NSF

National Science Foundation's (NSF's) Office of the Inspector General (OIG) oversees misconduct allegations related to NSF-funded research. NSF definition also centers on fabrication, falsification, and plagiarism, and applies to proposal writing, peer review, and research reporting. NSF typically refers allegations to the institution for investigation, expecting a report within 180 days. The NSF Deputy Director makes the final decision and determines sanctions.

12.5. Responsible Conduct of Research

Responsible Conduct of Research (RCR) or Responsible and Ethical Conduct of Research (RECR) training ensures ethical awareness and integrity in federally funded research.

NSF RECR: Required for undergraduates, graduate students, and postdoctoral researchers supported by NSF funds. Institutions must maintain an RCR policy (often CITI Program-based) and document compliance; training may be online/non-interactive.

NIH RCR: Applies to trainees under specific programs — F, K, T, and R25 awards —and must include at least 8 hours of discussion-based or interactive instruction, renewed every

four years. Institutions design the curriculum but must ensure it covers research ethics, authorship, peer review, data management, and societal responsibilities. Mandatory for:

- Principal Investigators (PIs),
- All key research personnel directly involved in the research process, and
- Anyone receiving research training (including undergraduates, graduate students, and postdocs).

12.6. Summary

Research misconduct policies and RCR training together uphold the integrity of the research enterprise. While misconduct investigations protect against violations such as fabrication or plagiarism, RCR training fosters a proactive culture of honesty, accountability, and ethical awareness among all participants in federally funded research.

12.7. Practice Questions

1. Which of the following is NOT considered a type of research misconduct?
    a. Falsification
    b. Plagiarism
    c. Fabrication
    d. Non-malfeasance

2. “Making up data or results” is the definition of:
    a. Falsification
    b. Plagiarism
    c. Fabrication
    d. Non-malfeasance

3. “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” is the definition of:
    a. Falsification
    b. Plagiarism
    c. Fabrication
    d. Non-malfeasance

4. “Presenting someone else's work or ideas as your own, with or without their consent” is the definition of:
    a. Falsification
    b. Fabrication
    c. Plagiarism
    d. Non-malfeasance

5. For NIH-funded awards, training in responsible conduct of research is:
    a. Required only for the PI.
    b. At the discretion of the PI, depending on experience.
    c. Required for undergraduates, graduate students and postdocs.

d. Required for the PI and all research personnel who have direct involvement in proposing, performing, reviewing or reporting research, or those who receive research training.

6. For NSF-funded awards, training in responsible conduct of research _____ required for postdoctoral fellows, and the training _____ .
    a. Is, can be done online using CITI Program.
    b. Is, has to be face to face.
    c. Is, has to be done using both CITI Program and face to face sessions taking at least three hours.
    d. Is not, is optional.

7. For NIH K01 grants, a plan for training in responsible conduct of research (RCR) is:
    a. Signed by the AOR in a separate form.
    b. Included in the application.
    c. Signed by the Vice President for Research in a separate form.
    d. Not needed.

8. Doctoral student Joe X works on an NIH-funded project with Professor Marc Y. Joe has been working on his project for 4 years, but no highly interesting results are obtained. It is unlikely that his results will lead to publication in prestigious journals, which may endanger not only his chances of getting a academic faculty position but even getting a good postdoctoral position. Joe realizes that if he omits 15 data points – out of 150 data points – the results will be much more interesting. He does omit those data points and reports the results to his professor. Joe defends his dissertation successfully. This is an example of:
    a. Fabrication
    b. Falsification
    c. Plagiarism
    d. Changing the results to improve science

9. In the example above, Professor Marc Y is unaware of the data omissions, as they were never reported to him. The results are published in a reputable journal. One

year afterwards, another graduate student informs Professor Y of what Joe had done. Prof Y has a duty to first report the allegations to:

a. The Director of the NIH I/C that funded the project.
b. The institutional Research Integrity Officer (RIO).
c. The University Provost.
d. The current employer of Joe.

10. According to 42 CFR Part 93, a finding of research misconduct requires that:
    a. The misconduct be proven beyond a reasonable doubt.
    b. The misconduct be committed unintentionally.
    c. The allegation be proven by a preponderance of the evidence.
    d. The misconduct be reported directly to ORI without institutional review.

11. In the Public Health Service (PHS) process, after receiving an allegation of research misconduct, the Research Integrity Officer (RIO) must first:
    a. Immediately suspend the respondent from all research activities.
    b. Assess whether the allegation is credible, specific, and within the definition of misconduct.
    c. Forward the allegation directly to the Assistant Secretary of Health.
    d. Appoint a full investigation committee without preliminary review.

12. Who makes the final determination of PHS sanctions in cases of confirmed research misconduct?
    a. Institutional Research Integrity Officer (RIO)
    b. Assistant Secretary for Health
    c. Deciding Official (DO) at the institution
    d. National Institutes of Health (NIH) Director

13. The federal office primarily responsible for oversight of research misconduct in Public Health Service (PHS)-funded research is:
    a. Office of Research Integrity (ORI)
    b. Office of Inspector General (OIG)
    c. National Institutes of Health (NIH) Office of Extramural Research
    d. Office for Human Research Protections (OHRP)

14. Which of the following scenarios does NOT constitute research misconduct?
    a. A researcher mistakenly reports an incorrect value because of a data-entry error later corrected in errata.
    b. A student copies another's unpublished grant proposal without attribution.
    c. A postdoc alters figures to make results appear more significant.
    d. A faculty member invents survey responses that were never collected.

15. According to NSF policy, the institution's investigation report on a research misconduct case should typically be submitted to NSF within:
    a. 30 days of the initial allegation
    b. 60 days of the inquiry phase
    c. 120 days of the initial allegation
    d. 180 days of the referral to the institution

12.8. Answers to Practice Questions

1. D

2. C To fabricate means to make. Fabrication is making up data or results that may not exist at all.

3. A To falsify means making something false, or not quite right. Falsification means changing data or results in ways that are not quite right.

4. C

5. D Anybody who has direct involvement in key aspects of research may potentially engage in fabrication, falsification, or plagiarism. That is why NIH stipulates that "all trainees, fellows, participants, and scholars receiving support through any NIH training, career development award (individual or institutional), research education grant, and dissertation research grant must receive instruction in responsible conduct of research."
https://www.nimh.nih.gov/funding/training/guidance-for-responsible-conduct-of-research-rcr-training-requirements

6. A The National Science Foundation (NSF) requires institutions to have a plan to provide appropriate training and oversight in the responsible and ethical conduct of research for undergraduate students, graduate students, postdoctoral scholars, faculty, and other senior personnel who will be supported by NSF to conduct research. The training must include mentor training and mentorship. However, NSF does not prescribe a specific format — institutions have flexibility in how they provide the training. https://www.nsf.gov/policies/responsible-research-conduct#:~:text=Additional%20resources-,Training%20requirements%20for%20NSF%2Dfunded%20institutions.
Many universities (including Morgan State University and many others) fulfill this requirement through online CITI Program RCR training modules.

7. B Applications for NIH career development (K) awards must include a plan for instruction in the Responsible Conduct of Research (RCR). This plan will be evaluated by peer reviewers during the review process. Applicants must document any prior RCR instruction and propose future plans based on the five required

components: format, subject matter, faculty participation, duration, and frequency. Applications without an acceptable plan will be considered incomplete and may be delayed or not reviewed. https://www.nimh.nih.gov/funding/training/guidance-for-responsible-conduct-of-research-rcr-training-requirements

8. B This is an example of falsification. Data did exist, but Joe manipulated the data by eliminating the data points he did not like.

9. B This allegation must be reported to the Research Integrity Officer (RIO) for further investigation.

10. C According to 42 CFR 93.105 (Evidentiary standards), "an institutional or HHS finding of research misconduct must be proved by a preponderance of the evidence." It does not need to be proven beyond a reasonable doubt. The requirements are: "Significant departure from accepted practices of the relevant research community; Committed intentionally, knowingly, or recklessly; and Proven by a preponderance of evidence."

11. B

12. B From the NIH Website: "The Assistant Secretary for Health (ASH) makes the final PHS/HHS decision on the imposition of administrative actions after reviewing the recommendations made by ORI, except when the administrative actions include debarment or suspension. The ASH may accept, modify, or reject the administrative actions recommended by ORI."

13. A

14. A "A" was unintentional, so it is not a research misconduct. "B" is a case of plagiarism. "C" is a case of falsification. "D" is a case of fabrication.

15. D