



NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL
OFFICE OF INVESTIGATIONS

CLOSEOUT MEMORANDUM

Case Number: A12030013

Page 1 of 1

NSF OIG received an allegation that a PI¹ and two Co-PIs² submitted an NSF Proposal³ containing plagiarism. Our inquiry determined that the PI was responsible for the plagiarism. We referred the matter to his University.⁴

The University's investigation concluded that the PI did not himself commit the plagiarism found and that the acts were not a significant departure from accepted practices of long term collaborators. The Committee recommended actions to protect the University's interests.

We assessed the University's Report and did not find it to be either fully accurate or complete. We therefore conducted our own investigation, which concluded, based on a preponderance of the evidence, that the PI recklessly plagiarized material in one NSF proposal, deemed a significant departure from accepted practice. We recommended actions to be taken to protect the federal interest. The Deputy Director concurred with our recommendations.

This memo, the attached Report of Investigation, and letter from the Deputy Director constitute the case closeout. Accordingly, this case is closed.

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National Science Foundation Office of Inspector General



Report of Investigation Case Number A12030013 March 27, 2014

**This Report of Investigation is provided to you
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Executive Summary

Allegation: Plagiarism.

OIG Inquiry: OIG identified four sources from which 67 lines, four figures, and 22 embedded references were copied into one NSF Proposal. Based on responses to our inquiry letters, we modified our assessment to identified 45 lines and 22 embedded references copied from one source into the Proposal and determined the Subject was responsible. OIG referred the investigation to the Subject's institution.

**University
Investigation
and Action:**

The University found 12 instances of plagiarism in one publication and six proposals. Despite stating that the Subject recklessly committed "what is viewed by the general research community as plagiarism," it found that the Subject did not himself commit plagiarism and that the acts were not a significant departure from accepted practices of long term collaborators.

The Committee recommended that the Subject complete RCR training; implement a requirement that those he works with complete RCR and provide proof of implementation; implement a requirement that contributors certify "that all standards for authorship and publication are regarded in their written contributions;" and review for five years all of his publications and proposals with plagiarism detection software. The University has not sent the Subject an official letter requiring adherence to these recommendations, although it concurred with the recommendations.

**OIG
Assessment:**

- **The Act:** Subject plagiarized 45 lines and 22 embedded references into one NSF proposal.
- **Intent:** Subject acted recklessly.
- **Standard of Proof:** A preponderance of evidence supports the conclusion that the Subject committed plagiarism.
- **Significant Departure:** The Subject's plagiarism represents a significant departure from accepted practices.
- **Pattern:** None

**OIG
Recommends:**

- Make a finding of research misconduct against the Subject
- Send the Subject a letter of reprimand
- Require certifications from the Subject for a period of one year
- Require certification of attending a comprehensive responsible conduct of research training class within one year

OIG's Inquiry

OIG conducted an inquiry into an allegation that an NSF proposal (Proposal¹) contained copied text. We reviewed the Proposal and found, as illustrated below, 67 lines, three figures, and 22 embedded references copied from four sources:²

Source	Proposal
A (article)	45 lines and 22 embedded references
B (article)	12 lines and 3 figures/captions
C (article)	3.5 lines and 1 figure/caption
D (workshop abstract)	6.5 lines
Total	67 lines, 4 figures, and 22 embedded references

Sources B, C, and D were seemingly authored by individuals with ties to the Proposal, but who were not acknowledged as Proposal authors. Although the Proposal included the reference for Source A, it was not clearly linked to the text that was copied verbatim without demarcation, and references included in the text from Source A text were used extensively in the Proposal.

We contacted the Proposal's PI (Subject)³ and Co-PIs (Co-PI1⁴ and Co-PI2⁵) regarding the allegations⁶ and received separate responses from each.⁷ The responses confirmed that collaborators authored Sources B, C, and D and acknowledged that Source A was inadequately cited. The responses also attributed the use of text from Source A to the Subject, who explained:

Ideas from multiple sources were collected to serve as background for the initial version of the proposal. Source A was used initially as a place holder with modifications to be made after review. Later while putting together this instrumentation proposal I inadvertently overlooked the imbedded mistake. Clearly this was an oversight since within the write-up, reference is given to the same author as part of our review.⁸

Based on the responses, we concluded there was sufficient evidence to proceed to an investigation focusing only on Source A and limited to the Subject.

¹Tab 1: [REDACTED] (Awarded).

²Tab 2.

³[REDACTED]

⁴[REDACTED]

⁵[REDACTED]

⁶Tab 3.

⁷Tab 4.

⁸Tab 4, Response 1, pg 2. All quotations herein are *sic*.

University Investigation

Consistent with our policy, we referred the investigation to the University.⁹ The University, consistent with its policies,¹⁰ convened a Committee, which produced a Report.¹¹ The Committee found that "The evidence proves that text from original sources was either copied verbatim or inappropriately paraphrased in publications and grant proposals for which [the Subject] served as co-author or principal investigator."¹² It said "[the Subject] did recklessly, yet unintentionally commit what is viewed by the general research community as plagiarism," due to a "lack of oversight, education, and monitoring."¹³ However, it determined the Subject himself did not commit plagiarism¹⁴ because "There was no clear pattern that established [the Subject] as the sole author of any of the publications that were plagiarized nor that he personally had plagiarized."¹⁵

The Committee's investigation examined one publication and six federally-funded grant proposals the Subject authored or co-authored, including the Proposal.¹⁶ The Committee focused primarily on proposals because they "were deemed most reliable in determining if [the Subject] personally demonstrated a pattern of plagiarism and to determine any intent in doing so."¹⁷ The Committee considered material plagiarized "If it was determined that verbatim text from the [Subject's] documents matched text from other sources within areas such as the introduction, abstract, or results without proper citation or inappropriate paraphrasing. . . ."¹⁸ and "there was no relationship between the original author and [the Subject] or his research centers."¹⁹ The Committee concluded there were 12 such instances of plagiarism.²⁰

The Subject attributed plagiarism in the documents to there being "a joint effort."²¹ He said:

I used information and the write-up that was collected from the Center team. I had it there on my system as a placeholder. . . . Someone sent it to me or gave it to me on a flash drive, during a meeting or something and I forgot to cite it more clearly and remove the placeholder.²²

⁹ [REDACTED] Tab 5 contains the referral letter.

¹⁰ Tab 6.

¹¹ Tab 7 contains the initial documents the University provided; Tab 8 includes subsequent documents the University provided in response to our requests. The Subject saw a copy of the University's draft report and provided comments that the Committee incorporated into its final Report.

¹² Tab 7, pg 8-9.

¹³ Tab 7, pg 12.

¹⁴ Tab 7, pg 8.

¹⁵ Tab 7, pg 9.

¹⁶ Tab 7, pg 17-25. Of the six proposals, four received NSF funding and two received DOD funding.

¹⁷ Tab 7, pg 4.

¹⁸ Tab 7, pg 6.

¹⁹ Tab 7, pg 4.

²⁰ Tab 7, pg 4-5. Tab 7, pg 17-25, include a chart of the Committee's plagiarism analysis.

²¹ Tab 7, pg 15.

²² Tab 7, pg 7.

He said "I always told the team on so many occasions to follow the best practices and I assumed that's so and I thought that they knew what they were doing. . . . I always moved ahead with the assumption that they stand by what they have gave me."²³ He added "When this [P]roposal was written I was responding also the NSF site visit for the [],²⁴ many things were going on at the time."²⁵ He concluded that "The mistake took place with me not knowing there was an error."²⁶

The Committee determined the "Plagiarism was part of a reckless pattern of copying text from original sources without proper citation and inappropriate paraphrasing."²⁷ It said that most individuals supported by the Subject are "foreign nationals" and that "As his research organization has grown, [the Subject]'s ability to ensure avoidance of research misconduct . . . has become less apparent in the development of publications."²⁸ Specifically, "There was no structured process that would have allowed [the Subject] to easily determine which contributor failed to follow the standards for avoiding plagiarism or tracking original sources in the final version."²⁹ It concluded:

A reasonable, experienced scientist overseeing multiple projects and developing numerous publications on a continuous basis would have established a better practice to ensure accountability for responsible authorship and publication to avoid plagiarism.³⁰

The Committee found the Subject's actions did not constitute "a significant departure from accepted practices of long term collaborators,"³¹ but only included in the Report the "standards for responsible authorship and publication" "in the general academic research community" and the Subject's professional society.³²

The Committee reported the Subject had taken two one-hour responsible conduct of research (RCR) training sessions, which included training "to reinforce appropriate paraphrasing, discuss mentoring, data management, and authorship and publication."³³

Lastly, the Committee determined that the plagiarism did not have a significant impact on the research community because it did not occur in the documents' results or conclusions section.³⁴

²³ Tab 7, pg 8.

²⁴ ERC.

²⁵ Tab 7, pg 8. The Subject said that the scientist who generally ensures completion of final edits experienced a personal tragedy and did not conduct his customary final document review before submission.

²⁶ Tab 7, pg 8.

²⁷ Tab 7, pg 12. The Report however noted that citations to the identified sources were often included in the reference list "suggesting no effort to conceal the sources used" (Tab 7, pg 12).

²⁸ Tab 7, pg 15.

²⁹ Tab 7, pg 15.

³⁰ Tab 7, pg 12.

³¹ Tab 7, pg 11.

³² Tab 7, pg 11-12. The Report referenced the National Society of Professional Engineer's Code of Ethics.

³³ Tab 7, pg 14.

³⁴ Tab 7, pg 13.

University Recommendation/Adjudication

The Committee recommended that the Subject 1) complete an RCR series; 2) implement a requirement that his students, co-investigators, and international collaborators complete RCR and provide proof of implementation; 3) implement a requirement that contributors certify "that all standards for authorship and publication are regarded in their written contributions;" and 4) review all of his publications and proposals with plagiarism detection software for five years.³⁵ The Committee also reported that, as a result of this matter, the University now examines proposals using plagiarism detection software before their submission to funding agencies.³⁶

The University informed us that, though University administrators read the report and agreed with the recommendations, it has not sent the Subject an official letter requiring him to adhere to the recommendations. Additionally, while it intends to implement a policy regarding routine use of plagiarism detection software, it is currently assessing other institutions' policies on this matter before drafting its own.³⁷

OIG's Assessment of the University Investigation Report

OIG invited the Subject's comments³⁸ on the University Report. His response,³⁹ which included a letter to our office and a copy of the comments he provided to the University on its draft report, reiterated the assertions he made during the inquiry and investigation. He added however that "I will work with the University in implement a procedure that will facilitate the elimination of such errors in future."⁴⁰

OIG assessed the Report for accuracy and completeness, and did not find the Report to be either fully accurate or complete; the Report provided contradictory findings without adequate explanation. Most notably, the Report stated the Subject recklessly committed "what is viewed by the general research community as plagiarism,"⁴¹ but did not find that the Subject committed plagiarism.⁴² Additionally, in deciding the act was not a significant departure from accepted practices, the Report relied on unidentified "standards of long term collaborators."⁴³ Overall, the Report focused less on the plagiarism in the Proposal we referred for investigation, and more on examining whether the Subject exhibited a pattern of plagiarism.⁴⁴ For these reasons, we could not accept the report in its totality in lieu of conducting our own investigation.

³⁵ Tab 7, pg 16.

³⁶ Tab 7, pg 5.

³⁷ [REDACTED] conveyed this information in a January 10, 2014, email.

³⁸ Tab 9.

³⁹ Tab 10.

⁴⁰ Tab 10, Final Comments, pg 2.

⁴¹ Tab 7, pg 12.

⁴² Tab 7, pg 8.

⁴³ Tab 7, pg 11-12. Note, per footnote 50 below, standards of practice within the Subject's research community indicate his actions were indeed a violation of standards of collaborators.

⁴⁴ A pattern of misconduct has limited evidentiary use in determining whether research misconduct has occurred.

OIG's Investigation

Our investigation focused on the Proposal we referred to the University. We concurred with the Committee's assessment that inclusion of Source A material constituted plagiarism⁴⁵ and that the Subject generally acted recklessly in committing "what is viewed by the general research community as plagiarism."⁴⁶ However, unlike the University, for reasons below, we concluded the Subject committed plagiarism, which we deemed a significant departure from accepted practices.

The Subject's statements to us and the Committee asserted that he inserted material from Source A, which he received from unnamed others, as a placeholder with the intent to later modify⁴⁷ or cite⁴⁸ it. The Subject thereby acknowledged he was personally responsible for compiling the Proposal and had himself inserted into it placeholder material. Additionally, the Report noted both that those providing the text were primarily "foreign nationals" and that the Subject had "no structured process" to prevent insertion of plagiarized text.⁴⁹ Accordingly, we concluded the Subject was himself responsible for recklessly plagiarizing material contained in the Proposal; inserting the work of others, many of whom were non-native English speakers, in a Proposal bearing his name without careful examination is characteristic of a reckless act of plagiarism.

We re-examined the accepted practices of the Subject's research community. We were unable to identify the content of "accepted practices of long term collaborators."⁵⁰ We also disagreed that the act committed was simply due to collaboration. Instead we concurred with the University's ambiguous assessment that the act constituted a significant departure from general academic practices and the Subject's professional society's standards. To clarify and identify these standards, we reviewed policies of professional societies and journals with which the Subject self-associated.⁵¹ Specifically, one professional society has a "Policy on Publication Ethics and Responsibilities" that states "Plagiarism is defined as the act of using the work of another and passing it off as one's own. Such behavior constitutes unethical scientific behavior and is never acceptable."⁵² Another professional society similarly states that it "defines plagiarism as the use or presentation of the ideas or words of another person from an existing source without appropriate acknowledgment to that source."⁵³ Lastly, the journal of which the Subject [REDACTED] contains a comprehensive discussion on Ethics in publishing,⁵⁴ which states that "Plagiarism takes many forms, from 'passing off' another's paper as the author's own paper, to copying or paraphrasing substantial parts of another's paper (without attribution), to claiming results from research conducted by others. Plagiarism in all its forms constitutes unethical publishing behavior

⁴⁵ Tab 7, pg 18. The Committee's analysis renames Source A as Source Number 1.

⁴⁶ Tab 7, pg 12.

⁴⁷ Tab 4, Response 1, pg 2.

⁴⁸ Tab 7, pg 7.

⁴⁹ Tab 7, pg 15.

⁵⁰ Tab 7, pg 11.

⁵¹ Tab 7, Subject's Bio.

⁵² Materials Research Society, <http://www.mrs.org/publication-ethics/>, viewed Jan. 17, 2014. This site also discusses collaborations, which states that "All collaborators share some degree of responsibility for any paper they coauthor. . . . Any individual unwilling or unable to accept appropriate responsibility for a paper should not be a coauthor."

⁵³ American Society of Mechanical Engineers, <https://www.asme.org/shop/proceedings/conference-publications/ethical-standards>, viewed Jan. 17, 2014.

⁵⁴ [REDACTED] viewed Jan. 17, 2014. This page provides links to two other pages.

and is unacceptable.”⁵⁵ The journal’s website also contains a discussion about ethics related to Plagiarism,⁵⁶ which includes a webinar on Ethics and Plagiarism.⁵⁷ We conclude that the Subject himself violated the accepted practices of his research community by not properly acknowledging others’ contributions in a Proposal he submitted as PI.

Lastly, we re-reviewed the University’s evidence regarding pattern of plagiarism. We concluded that the amount of copied material in any one document, with one exception,⁵⁸ was generally de minimis. We therefore did not identify a pattern of plagiarism.

OIG’s Assessment

A finding of research misconduct by NSF requires (1) there be a significant departure from accepted practices of the relevant research community, (2) the research misconduct be committed intentionally, or knowingly, or recklessly, and (3) the allegation be proved by a preponderance of the evidence.⁵⁹

The Acts

OIG’s investigation concluded that the Subject plagiarized 45 lines and 22 embedded reference into one funded NSF proposal. We also concluded that the Subject’s actions constituted a significant departure from accepted standards within the Subject’s research community.

Intent

Based on our investigatory review, as described above, we conclude that the Subject recklessly copied material into the Proposal.

Standard of Proof

OIG concludes that the Subject’s actions and intent were proven based on a preponderance of the evidence.

OIG concludes by a preponderance of the evidence that the Subject recklessly plagiarized, thereby committing an act of research misconduct.⁶⁰

⁵⁵ <http://www.elsevier.com/journal-authors/ethics#writing-an-article>.

⁵⁶ <http://www.elsevier.com/editors/perk/plagiarism-detection>.

⁵⁷ <http://mediazone.brighttalk.com/comm/ReedElsevier/99ed983c88-25930-2251-28002>.

⁵⁸ The proposal the Committee identified as P5 was the exception; two figures were copied from a source referenced in the proposal near a statement related to the figures but not near the figures themselves.

⁵⁹ 45 C.F.R. §689.2(c).

⁶⁰ 45 C.F.R. part 689.

OIG's Recommended Disposition

When deciding what appropriate action to take upon a finding of misconduct, NSF must consider:

(1) How serious the misconduct was; (2) The degree to which the misconduct was knowing, intentional, or reckless; (3) Whether it was an isolated event or part of a pattern; (4) Whether it had a significant impact on the research record, research subjects, other researchers, institutions or the public welfare; and (5) Other relevant circumstances.⁶¹

Seriousness

The Subject's actions are a violation of the standards of scholarship and the tenets of general research ethics. Copied text serves to misrepresent one's body of knowledge, presenting reviewers with an inaccurate representation of a proposal's respective merit.

Pattern

Our review did not identify a pattern of plagiarism.

Recommendation

Based on the evidence, OIG recommends that NSF:

- Send the Subject a letter of reprimand notifying him that NSF has made a finding of research misconduct.⁶²
- Require the Subject to certify to the Assistant Inspector General for Investigations (AIGI) his completion of a responsible conduct of research training program and provide documentation of the program's content within 1 year of NSF's finding.⁶³ The instruction should be in an interactive format (*e.g.*, an instructor-led course) and specifically include the topic of plagiarism.

For a period of 1 year as of the date of NSF's finding:

- Require for each document (proposal, report, etc.) to which the Subject contributes for submission to NSF (directly or through his institution),
 - the Subject to submit a contemporaneous certification to the AIGI that the document does not contain plagiarism, falsification, or fabrication.⁶⁴

⁶¹ 45 C.F.R. § 689.3(b).

⁶² A Group I action 45 C.F.R. 689.3(a)(1)(i).

⁶³ This action is similar to Group I actions 45 C.F.R. 689.3(a)(1).

⁶⁴ This action is similar to 45 C.F.R. 689.3(a)(1)(iii).

The Subject's Response to Draft Investigation Report

We provided the Subject with a copy of our draft report and attachments for comment. He asked that we clarify the recommendation pertaining to certifications he would provide for each document submitted to NSF. Specifically, he was concerned about certifying a voluminous report he and directors from other institutional centers submit on behalf of the NSF award, but to which he only minimally contributes. In response, we agree that his certification on such a document is limited to the portion he himself authored.

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230



OFFICE OF THE
DIRECTOR

SEP 02 2014

CERTIFIED MAIL -RETURN RECEIPT REQUESTED

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Re: Notice of Proposed Research Misconduct Determination

Dear Dr. [REDACTED]

As the [REDACTED]
[REDACTED]
you served as the Principal Investigator on an [REDACTED] As
documented in the attached Investigative Report prepared by NSF's Office of Inspector General
("OIG"), the proposal contained 45 lines and 22 embedded references of plagiarized material.

Research Misconduct and Proposed Sanctions

Under NSF's regulations, "research misconduct" is defined as "fabrication, falsification, or plagiarism in proposing or performing research funded by NSF ..." 45 CFR § 689.1(a). NSF defines "plagiarism" as the "appropriation of another person's ideas, processes, results or words without giving appropriate credit." 45 CFR § 689.1(a)(3).

A finding of research misconduct requires that:

- (1) There be a significant departure from accepted practices of the relevant research community; and
- (2) The research misconduct be committed intentionally, or knowingly, or recklessly; and
- (3) The allegation be proven by a preponderance of evidence.

45 CFR § 689.2(c)

You acknowledged that you were personally responsible for compiling the Proposal and inserting the material at issue. The plagiarized material came from a single source document, and while the proposal included a reference to the source document, it was not clearly linked to the text that was copied verbatim without demarcation, and references included in the text from the source document were used extensively in the Proposal. The facts as described in the OIG report permit me to conclude that your actions meet the applicable definition of plagiarism, as set forth in NSF's regulations.

Pursuant to NSF's regulations, the Foundation must also determine whether to make a *finding* of research misconduct based on a preponderance of the evidence. 45 CFR § 689.2(c). After reviewing the OIG Investigative Report, NSF has determined that, based on a preponderance of the evidence, the plagiarism was committed recklessly and constituted a significant departure from accepted practices of the relevant research community. I am, therefore, issuing a finding of research misconduct against you.

NSF's regulations establish three categories of actions (Group I, II, and III) that can be taken in response to a finding of misconduct. 45 CFR § 689.3(a). Group I actions include issuing a letter of reprimand; conditioning awards on prior approval of particular activities from NSF; requiring that an institutional representative certify as to the accuracy of reports or certifications of compliance with particular requirements. 45 CFR § 689.3(a)(1). Group II actions include award suspension or restrictions on designated activities or expenditures; requiring special reviews of requests for funding; and requiring correction to the research record. 45 CFR § 689.3(a)(2). Group III actions include suspension or termination of awards; prohibitions on participation as NSF reviewers, advisors or consultants; and debarment or suspension from participation in NSF programs. 45 CFR § 689.3(a)(3).

In determining the severity of the sanction to impose for research misconduct, I have considered the seriousness of the misconduct; my determination that it was committed recklessly; the fact that the misconduct had no impact on the research record; and the fact that the misconduct was an isolated incident. I have also considered other relevant circumstances. *See* 45 CFR § 689.3(b).

Based on the foregoing, I am imposing the following action on you:

- You are required to complete a comprehensive responsible conduct of research training within one year from the date that the research misconduct determination becomes final, and provide documentation of the program's content. The instruction should be in an interactive format (e.g., an instructor-led course, workshop, etc.) and should include a discussion of plagiarism.
- For one year from the date that the research misconduct determination becomes final, you are required to submit certifications that any proposals or reports you submit to NSF do not contain plagiarized, falsified, or fabricated material.

All training documentation should be submitted in writing to NSF's Office of the Inspector General, Associate Inspector General for Investigations, 4201 Wilson Boulevard, Arlington, Virginia 22230.

Appeal Procedures for finding of Research Misconduct

Under NSF's regulations, you have 30 days after receipt of this letter to submit an appeal of this finding, in writing, to the Director of the Foundation. 45 CFR § 689.10(a). Any appeal should be addressed to the Director at the National Science Foundation, 4201 Wilson Boulevard, Arlington, Virginia 22230. If we do not receive your appeal within the 30-day period, the decision on the finding of research misconduct will become final. For your information, we are attaching a copy of the applicable regulations.

Should you have any questions about the foregoing, please contact [REDACTED] Assistant General Counsel, at (703) 292-[REDACTED]

Sincerely,



Richard O. Buckius
Acting Chief Operating Officer

Enclosures:
Investigative Report
Nonprocurement Debarment Regulations
FAR Regulations
45 CFR Part 689