

NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL
OFFICE OF INVESTIGATIONS

CLOSEOUT MEMORANDUM

Case Number: A09040026

Page 1 of 1

OIG conducted an inquiry into an allegation that the Subject¹ submitted an NSF proposal containing copied text. During the inquiry we identified copied material in three NSF proposals.² The Subject's response to our inquiry did not dispel the allegation, and we referred the matter to the Subject's institution for investigation.

The University concluded, based on a preponderance of the evidence, that the Subject carelessly and recklessly committed plagiarism, deemed a significant departure from accepted practices, and took actions to protect the University's interests.

We concurred with the University's assessment and accepted its findings in lieu of conducting our own investigation. We recommended actions to be taken to protect the federal interest and the Deputy Director concurred with our recommendations.

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

¹ [REDACTED]

² During the investigation, we determined that only the copied material in one of the three proposals constituted substantive plagiarism.

National Science Foundation Office of Inspector General



Confidential Report of Investigation Case Number A-09040026 12 November 2010

**This Confidential Report of Investigation is provided to you
FOR OFFICIAL USE ONLY.**

It contains protected personal information, the unauthorized disclosure of which may result in personal criminal liability under the Privacy Act, 5 U.S.C. § 552a. This report may be further disclosed within NSF *only* to individuals who *must* have knowledge of its contents to facilitate NSF's assessment and resolution of this matter. This report may be disclosed outside NSF *only* under the Freedom of Information and Privacy Acts, 5 U.S.C. §§ 552 & 552a. Please take appropriate precautions handling this confidential report of investigation.

Executive Summary

Allegation: Plagiarism.

OIG Inquiry: OIG identified 18 sources from which approximately 82 lines, 1 diagram, and 12 embedded references were copied into three declined NSF proposals. OIG referred investigation of the matter to the Subject's home institution.

**University
Investigation
and Action:**

The University concluded, based on a preponderance of the evidence, that the Subject carelessly and recklessly committed plagiarism, deemed a departure from accepted practices of his University and his academic department.

The University required the Subject to: complete a continuing education course in professional ethics before submitting future proposals or papers; sign affidavits for 2 years affirming his proposal and peer reviewed publication submissions contain no plagiarism; discuss the Report with a Dean; use plagiarism detection software to analyze two publications on which he was sole author and submit his analysis to them; and certify to administrators that there has been no knowing or intentional plagiarism in his publications.

**OIG
Assessment:**

- **The Act:** The Subject plagiarized 32 lines, 1 diagram, and 12 embedded references, from seven sources into one declined NSF proposal.
- **Intent:** The 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:** Two of the originally examined NSF proposals contained small amounts of plagiarism. Additionally, four articles the Subject coauthored and three proposals the Subject authored, including two other NSF proposals, contained plagiarism.

**OIG
Recommends:**

- Make a finding of research misconduct against the Subject.
- Send the Subject a letter of reprimand.
- Require certification of attending an ethics class within 1 year.

OIG's Inquiry

OIG conducted an inquiry into an allegation that the Subject¹ submitted an NSF proposal (Proposal 1²) containing copied text. Our analysis found 20 lines and three embedded references copied from four sources. We identified copied text in two other proposals: Proposal 2³ contained 32 lines, one diagram, and 12 embedded references from seven sources; and Proposal 3⁴ contained 30 lines and three embedded references from seven sources.⁵

OIG contacted the Subject about the allegation.⁶ In his response,⁷ the Subject wrote:

I do not think there is plagiarism in my proposals. There is no appropriation of another person's ideas, processes, or results in my proposals. Although in my proposals some identical or similar sentences with published papers was found, I believe I have given those publications and authors credit by appropriate citation in most of the text identified, if not all.⁸

He also wrote that the proposals' introductions contain the OIG-annotated text and that the:

Introduction part often contains a lot of information about basic knowledge that have been described in same or similar ways, some scientific facts that could not be changed much, some research conclusions from original research papers that should be described as accurate as possible, and some points of view from review articles that should be cited as original as possible.⁹

He noted: "Almost all identified identical or similar texts in these three proposals are in the Introduction parts and fall into the four categories mentioned above,"¹⁰ and concluded: "I thought, as a molecular biologist and biochemist, the way I wrote the introduction part of the proposals and also the introduction of research articles was not plagiarism."¹¹

We concluded the Subject's response did not dispel the allegation. The following chart summarizes the allegedly copied material in each proposal:

¹ [REDACTED]
² Tab 1: [REDACTED]
[REDACTED] (Declined) PI: Subject.
³ Tab 2: [REDACTED]
(Declined) PI: Subject.
⁴ Tab 3: [REDACTED]
[REDACTED] (Declined) PI: Subject.

⁵ Tab 4 contains Sources A-R.

⁶ Tab 5.

⁷ Tab 6.

⁸ Tab 6, pg 1.

⁹ Tab 6, pg 1.

¹⁰ Tab 6, pg 1.

¹¹ Tab 6, pg 4.

Source	Proposal 1 (Declined)	Proposal 2 (Declined)	Proposal 3 (Declined)
A (article)	4 lines		
B (article)	11.5 lines; 2 embedded references		
C (article)	2 lines		
D (article)	2.5 lines; 1 embedded reference		
E (article)		2.5 lines	
F (article)		6 lines; 4 embedded references	
G (article)		2 lines	
H (article)		4 lines; 1 embedded reference	
I (article)		6.5 lines; 6 embedded references	
J (article)		5 lines; 1 diagram	
K (article)		6 lines; 1 embedded reference	
L (article)			1.5 lines
M (article)			4 lines
N (article)			5 lines; 3 embedded references
O (article)			12 lines
P (article)			2.5 lines
Q (article)			2.5 lines
R (article)			2 lines
Total (UNIQUE)	20 lines; 3 embedded references	32 lines; 1 diagram; 12 embedded references	30 lines; 3 embedded references

Based on the extent of copied material, we concluded there was sufficient evidence to proceed with an investigation.

University Investigation

Consistent with our policy, we referred the matter to the University¹² and informed the Subject we had done so.¹³ The University, consistent with its policies,¹⁴ conducted an investigation and produced an Investigation Report (Report) with attachments.¹⁵

The Committee reviewed each instance of copied text and determined each constituted plagiarism.¹⁶ It noted that every segment occurred in the proposals' introductions and that no

¹² [REDACTED]

¹³ Tab 7.

¹⁴ Tab 8.

¹⁵ Tab 9.

¹⁶ Tab 9, pg 2. (Page numbers correspond to those assigned by Adobe in the .pdf document,)

complete paragraphs were copied.¹⁷ The Committee characterized 11 segments as careless,¹⁸ 12 segments as reckless,¹⁹ and 1 segment as knowing.²⁰ The 13 segments labeled reckless and knowing comprised "fifteen sentences and ten phrases for a total of 471 words."²¹ The Committee concluded the Subject "was not trying to deceive others in his actions and was unaware of what constituted plagiarism."²² It wrote:

Although [the Subject] clearly understood the importance of high ethical standards in performing research and dealing with scientific data, as well as the importance of giving credit to others for their scientific work and ideas, he was not aware that taking a sentence from a published text could constitute plagiarism. In fact, he asserts that he was never told by his post-doctoral mentors that one cannot copy a sentence from a published paper or abstract. He also believed that an inaccurate portrayal of another's work would be much more hurtful than using their own sentences to accurately portray their research. Furthermore, [he] had been of the opinion that the background to a paper or proposal should state the facts with respect to the status of the field, rather than offering his view of the field; hence, his focus was on accuracy.²³

The Committee determined the Subject's actions represented a significant departure from accepted practices both within his University and his academic department, but were uncertain whether his actions were a significant departure from his academic subspecialty. It wrote:

... during the course of the investigation multiple examples of publications in the subspecialty of []²⁴ and []²⁵ were found in which verbatim copying of sources had occurred; in these cases, sources were generally cited but quotations were never used.^[26] ... Hence, there is some indication that the verbatim use of text *with* citation of the source may not be a significant departure from the norm in this subspecialty ... This is consistent with [the Subject]'s assertion that he did not know that his actions constituted plagiarism and that he used verbatim copying of a

¹⁷ Tab 9, pg 2. Tab 9, pg 2-3, contains a chart listing and classifying each segment.

¹⁸ The Committee defined careless as either "the source of the plagiarized text was cited although quotes were not used" or "exact or very similar wording was found in multiple other texts" (Tab 9, pg 2).

¹⁹ The Committee defined reckless as "up to several sentences were copied without citation of the source although in one case the source was cited" (Tab 9, pg 2).

²⁰ The Committee did not define knowing, but noted two committee members disagreed with this assessment (Tab 9, pg 2).

²¹ Tab 9, pg 2.

²² Tab 9, pg 4.

²³ Tab 9, pg 4.

²⁴ [REDACTED]

²⁵ [REDACTED]

²⁶ Tab 9, pgs 5-7 contains examples the Committee identified of other authors' texts within the Subject's subfield containing cited verbatim text, lacking demarcation. However, we note many of these examples are instances of authors re-using material from others works they authored or coauthored.

source accompanied by citation of that source to ensure accuracy in reporting of results as was done by others.²⁷

To determine pattern, the Committee used plagiarism detection software to examine five publications the Subject coauthored, and three proposals the Subject authored.²⁸ It identified reckless plagiarism in two publications,²⁹ and reckless and knowing plagiarism in a third,³⁰ noting the Subject was corresponding or lead author on these publications. A fourth publication³¹ contained no plagiarism. The fifth³² contained "substantial plagiarism . . . including seemingly verbatim copy of a complete paragraph, which was deemed to be level 4 (purposeful and intending to deceive)." We note the Subject was neither the lead nor corresponding author for the fifth publication and that the University could not attribute the text directly to him.

The Committee also reviewed a proposal the Subject submitted to another federal agency³³ and two additional NSF proposals,³⁴ and identified primarily careless and reckless plagiarism. However, in one NSF proposal:³⁵

Data for Figure 1 and Table 1 were published several months after the proposal was submitted by one of [the Subject]'s mentors at []³⁶ without [the Subject] being a coauthor. Although the data were used by [the Subject] with the permission of [one of the mentors],³⁷ as confirmed in a telephone call with the latter, proper attribution to the laboratory generating the data was not made.³⁸

The Committee determined this plagiarism was intentional, but noted that the Subject including material for which he had received permission could be viewed as careless.

²⁷ Tab 9, pg 4.

²⁸ Tab 9, pg 7. Analyses of these documents, and proposals discussed below, appear in Tab 9, pgs 41-52 in Appendix C; Analysis of Other Works Using iThenticate; and pgs 53-191 in Appendix D Annotated iThenticate Printouts.

²⁹ Tab 9, pg 7, labeled C1 and C2: [REDACTED] and [REDACTED]. The Report finds C1 contained 22 words copied recklessly from 1 source (Tab 9, pg 42) and C2 contained 94 words copied recklessly from 3 sources (Tab 9, pg 43).

³⁰ Tab 9, pg 7, labeled C5: [REDACTED]. The Report finds C5 contained 178 words copied recklessly or knowingly from 4 sources (Tab 9, pgs 47-48).

³¹ Tab 9, pg 7, labeled C4: T. [REDACTED]

³² Tab 9, pg 7, labeled C3: G. [REDACTED]. The Report finds C3 contained 1,458 words copied recklessly, knowingly, and/or intentionally from 14 sources (Tab 9, pgs 44-45). (The article did not indicate NSF supported this research.)

³³ Tab 9, pg 7, labeled C6: [REDACTED] PI: Subject. The Report finds C6 contained 135 words copied recklessly from 4 sources (Tab 9, pg 49-50).

³⁴ Tab 9, pg 7, labeled C7 and C8: [REDACTED] PI= Subject. Both proposals were declined. The Report finds C7 contained 67 words copied recklessly from 2 sources (Tab 9, pg 51) and C8 contained a figure and a table intentionally copied from 1 source (Tab 9, pg 52).

³⁵ NSF proposal [REDACTED]

³⁶ [REDACTED]

³⁷ [REDACTED]

³⁸ Tab 9, pg 8.

Lastly, the Committee concluded the Subject's actions did not negatively impact "the research records, other researchers, [the University], or the public welfare."³⁹

The Committee recommended the Subject complete a continuing education course in professional ethics before submitting future proposals or papers, and that he sign affidavits for two years affirming his proposal submissions contain no plagiarism.⁴⁰

The Committee recommended the University develop scholarly ethics training and require its biannual completion by undergraduate researchers, graduate students, postdoctoral researchers, and faculty; discuss plagiarism and ethical conduct at new faculty orientation; and make plagiarism software available to those preparing proposals and manuscripts.⁴¹

University Adjudication

University administrators⁴² concurred with the Committee's conclusions and implemented its recommendations.⁴³ Administrators further required the Subject:

- discuss the administrators' letter and Report with a dean;
- use plagiarism detection software to analyze two publications on which he was sole author and submit his analysis to them;
- certify to administrators that there has been no knowing or intentional plagiarism in his publications; and
- for the next 2 years, sign an affidavit for every peer reviewed publication he intends to submit that it contains no plagiarism and send it to an administrator.⁴⁴

OIG's Assessment

The University provided OIG with its Report, and OIG invited the Subject's comments.⁴⁵ The Subject did not respond to our invitation to comment.⁴⁶

OIG assessed the Report for accuracy and completeness, and found the Report to be both accurate and complete.⁴⁷ We further conclude the University followed reasonable procedures in conducting its investigation. We were highly impressed with the quality of the Report and

³⁹ Tab 9, pg 9.

⁴⁰ Tab 9, pg 9.

⁴¹ Tab 9, pg 9.

⁴²

⁴³ Tab 10, pg 3-4.

⁴⁴ Tab 10, pg 4.

⁴⁵ Tab 12.

⁴⁶ Tab 12.

⁴⁷ Though the Report did not specifically state its findings were based on a preponderance of the evidence, the Report clearly illustrated the significant evidence upon which the Committee based its judgment.

attachments. Therefore, we adopted the findings in lieu of conducting our own investigation, only re-examining the segments labeled as careless in Proposals 1-3.

The Report classifies Sources B5, C, P, Q, and R, as careless because those complete segments included citations in close proximity to their source. Although mere citation to the source of a block of text is not accepted scholarly practice in most scientific disciplines, we agree that it does mitigate the level of intent. Therefore, in this specific case, we concur with the Report that the subject's actions were careless regarding these sources

We re-examined the other segments identified as careless – B1 and B3 in Proposal 1; G and I in Proposal 2; and M and O2 in Proposal 3. We determined these segments were not identical/significantly similar to the source the Committee identified;⁴⁸ did not have a citation in close proximity to the copied text;⁴⁹ and/or, included embedded references, indicating a more than careless level of plagiarism.⁵⁰ We therefore disagree with the Report's assessment of segments B1, B3, G, I, M and O2 as careless, and note the Report itself did not remove segments characterized as careless from its overall analysis.

Removing Sources B5, C, P, Q, and R from our analysis, the remaining copied material in each proposal is as follows:

Source	Proposal 1 (Declined)	Proposal 2 (Declined)	Proposal 3 (Declined)
A (article)	4 lines		
B (article)	8.5 lines; 2 embedded references		
D (article)	2.5 lines; 1 embedded reference		
E (article)		2.5 lines	
F (article)		6 lines; 4 embedded references	
G (article)		2 lines	
H (article)		4 lines; 1 embedded reference	
I (article)		6.5 lines; 6 embedded references	
J (article)		5 lines; 1 diagram	
K (article)		6 lines; 1 embedded reference	
L (article)			1.5 lines
M (article)			4 lines
N (article)			5 lines; 3 embedded references
O (article)			12 lines
Total (UNIQUE)	15 lines; 3 embedded references	32 lines; 1 diagram; 12 embedded references	22.5 lines; 3 embedded references

⁴⁸ Sources B1, G and I.

⁴⁹ Sources M and O2.

⁵⁰ Source B3

Only the copied material in Proposal 2 constitutes substantive plagiarism. The remaining plagiarism in Proposals 1 & 3 will be addressed under the discussion of pattern.

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.⁵¹

The Acts

Our review found the Subject plagiarized 32 lines, one diagram, and 12 embedded references, from seven sources into one unfunded proposal. OIG concurs with the Report that the Subject's actions constitute plagiarism, as described in NSF's definition. In offering material composed by others as his own, the Subject misrepresented his own efforts and presented reviewers with an incorrect measure of his abilities.

The Report found the Subject's acts constituted a significant departure from accepted practices of his University and his academic department.⁵² We concur with the University's assessment and find his actions constituted a significant departure from accepted practices.

Intent

The Report concluded the Subject acted carelessly and recklessly⁵³ in plagiarizing material in Proposals 1-3. Our analysis, detailed above, determined that for the several instances discussed throughout this report, that the Subject's level of intent rose above the level of "careless." First, he did not contest he included material from sources. Second, the inclusion of embedded references indicates he more than carelessly copied text with citation to its source. Therefore, we conclude the subject's actions were reckless.

Standard of Proof

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

OIG concludes that the Subject, by a preponderance of the evidence, recklessly plagiarized, thereby committing an act of research misconduct.⁵⁴

⁵¹ 45 C.F.R. §689.2(c).

⁵² Tab 9, pg 4.

⁵³ Only one segment of annotated text in Proposals 1-3 was labeled knowing.

⁵⁴ 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.⁵⁵

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 proposals' respective merit. Nonetheless, we acknowledge the amount of material plagiarized into Proposal 2 is small compared to other cases our office has investigated.

Degree to which Action was Reckless

OIG finds that the Subject acted recklessly, for reasons explained above. Although a reasonable person would be expected to know that using verbatim text without demarcation was not acceptable, we believe the Subject's training and academic background led to perhaps a lack of nuanced understanding of appropriate citation practices. We therefore conclude that his actions were distinctly reckless.

Pattern

The Committee identified at least reckless plagiarism in four articles the Subject coauthored, and in three other proposals the Subject authored. This is in addition to the small amounts of plagiarism identified in Proposals 1 & 3. Therefore, we conclude that the Subject had shown a pattern of plagiarism. However, we do note that none of the plagiarism identified as a pattern were particularly large in scope.

Recommendation

Based on the evidence, OIG recommends NSF:

- send a letter of reprimand to the Subject informing him that NSF has made a finding of research misconduct;⁵⁶ and

⁵⁵ 45 C.F.R. § 689.3(b).

⁵⁶ A letter of reprimand is a Group I action (45 C.F.R. §689.3(a)(1)(i)).

- require the Subject to complete an ethics course, which includes discussion on citation practices, within 1 year and provide certification of its completion to OIG.⁵⁷

Institution's Response Concerning RCR Information

Because the Subject claimed to have received no formal training in Responsible Conduct of Research (RCR) training, we wrote to the Institution requesting information regarding its RCR efforts for faculty.⁵⁸ The Institution's response to our inquiry is also attached to this report.⁵⁹

⁵⁷ Completing an ethics course is a final action that is comparable to the final actions listed in 45 C.F.R. §689.3(a).

⁵⁸ Tab 12,

⁵⁹ Tab 13.

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230



OFFICE OF THE
DIRECTOR

MAR 15 2011

CERTIFIED MAIL --RETURN RECEIPT REQUESTED

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

Re: Notice of Research Misconduct Determination

Dear Dr. [REDACTED]

In 2005, you submitted a proposal to the National Science Foundation ("NSF") entitled, [REDACTED] As documented in the attached Investigative Report prepared by NSF's Office of Inspector General ("OIG"), this proposal contained 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).

Your proposal contained verbatim and paraphrased text, as well as a diagram and embedded references, copied from seven source documents. By submitting a proposal to NSF that copied the ideas or words of another without adequate attribution, as described in the OIG Investigative Report, you misrepresented someone else's work as your own. Your conduct unquestionably constitutes plagiarism. I therefore conclude that your actions meet the definition

of "research misconduct" set forth in NSF's regulations.

Pursuant to NSF regulations, the Foundation must also determine whether to make a *finding* of misconduct based on a preponderance of the evidence. 45 CFR § 689.2(c). After reviewing the Investigative Report, NSF has determined that, based on a preponderance of the evidence, your 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 institution or individual obtain special prior approval of particular activities from NSF; and 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, and our determination that it was committed recklessly. I have also considered the fact that you engaged in a pattern of misconduct, and that your misconduct had no impact on the research record. In addition, I have considered other relevant circumstances. 45 CFR § 689.3(b).

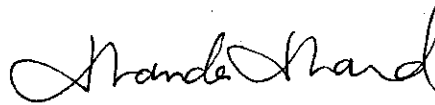
After assessing the relevant facts and circumstances of this case, I am requiring you to take a course on research ethics, with an emphasis on proper citation and attribution, no later than March 12, 2012. You must certify to the OIG that you have completed such a course. The certification should be submitted in writing to the Foundation's OIG, Associate Inspector General for Investigations, 4201 Wilson Boulevard, Arlington, Virginia 22230.

Procedures Governing Appeals

Under NSF's regulations, you have 30 days after receipt of this letter to submit an appeal of this decision, 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, this decision will become final.

For your information, we are attaching a copy of the applicable regulations. If you have any questions about the foregoing, please call [REDACTED] Assistant General Counsel, at (703) 292-8060.

Sincerely,

A handwritten signature in cursive script, appearing to read "Wanda Ward".

Wanda Ward
Senior Advisor to the Director

Enclosures

- Investigative Report
- 45 C.F.R. Part 689