



NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL
OFFICE OF INVESTIGATIONS

CLOSEOUT MEMORANDUM

Case Number: A10080064

Page 1 of 1

The National Science Foundation (NSF) Office of Inspector General (OIG) conducted an inquiry into an allegation that the Subject¹ submitted two NSF proposals² containing plagiarism. We reviewed the proposals and confirmed they contained plagiarized material. We also identified plagiarism in three other NSF proposals³ the Subject submitted and in one proposal the Subject's small business submitted, which the Subject acknowledged he himself authored. We concluded there was sufficient evidence to proceed with an investigation, which we conducted internally because the institution was a small business.

Our investigation concluded, based on the preponderance of the evidence, that the Subject recklessly committed plagiarism, deemed a significant departure from accepted practices of his professional community. 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 the Deputy Director's letter constitute the case closeout. Accordingly, this case is closed.

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[REDACTED]

National Science Foundation Office of Inspector General



Confidential Report of Investigation Case Number A10080064 August 15, 2011

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Executive Summary

Allegation: Plagiarism.

OIG Inquiry: OIG identified 11 sources from which approximately 65 lines, 3 figures, and 4 references were apparently copied into 2 NSF proposals. The Subject acknowledged having copied inadequately cited material into his proposals.

OIG

Investigation: OIG concluded, based on a preponderance of the evidence, that the Subject recklessly committed plagiarism, and that the plagiarism constituted a significant departure from accepted practices of his professional community.

OIG

Assessment:

- **The Act:** The Subject plagiarized 275 lines, 6 figures, and 13 references from 34 sources into 6 proposals.
- **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:** Six NSF proposals submitted by the Subject contain plagiarism.

OIG

Recommendations:

- 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 2 years.
- Require certification of attending a research ethics class within 1 year.

OIG's Inquiry

OIG conducted an inquiry into an allegation that the Subject¹ submitted two NSF proposals (Proposal 1² and Proposal 2³) containing copied text. Our initial analysis found approximately 44 lines, one figure, and four embedded references allegedly copied from six sources in Proposal 1, and 21 lines allegedly copied from five additional sources in Proposal 2.⁴

OIG contacted the Subject about the allegation.⁵ In his response,⁶ the Subject acknowledged he "did not properly cite or quote other authors' statements."⁷ He noted that Figures 3 and 4 in Proposal 2 were also "published by other researchers but not cited"⁸ and that two other proposals⁹ submitted to NSF also contained inadequately cited text. He said the copying was unintentional and attributed it to the way he prepares proposals:

I used to take notes from publications of other authors on the major conclusions and key issues they raised and need to be solved. As some statements were tough to understand, I used paraphrase and some time copied them to my notes for the following study. In some cases I did denote the origin of the statements. When I started to write proposals, I used to refer to my notes instead of the original publications. [sic]¹⁰

He recently started to write proposals, he said, and:

I thought the idea's originality and creativity is the most important things for a valuable proposal. My initial purpose is to use others research results and statements to support my proposal's creativity. I focused on the originality and creativity of the proposed ideas to much and omitted the fact that I have to properly cite and quote others findings and statements. [sic]¹¹

¹ [REDACTED]

² Tab 1: [REDACTED] entitled [REDACTED]
[REDACTED] PI: Subject.

³ Tab 2: [REDACTED] entitled [REDACTED]
[REDACTED] PI: Subject.

⁴ Tab 3: Sources A-K.

⁵ Tab 4.

⁶ Tab 5.

⁷ Tab 5, pg 1.

⁸ The Subject's response does not indicate the sources from which these figures were copied and our review of the figures could not identify their source(s).

⁹ [REDACTED] entitled [REDACTED]
[REDACTED] and [REDACTED] entitled [REDACTED]

¹⁰ Tab 5, pg 1.

¹¹ Tab 5, pg 1.

He said he realizes the seriousness now and has taken corrective actions, such as requiring review of proposals for proper citation and disallowing direct copying.¹²

Because the Subject acknowledged having copied inadequately cited material into his proposals, OIG determined there was sufficient evidence to proceed with an investigation. The following chart summarizes the copied text in Proposals 1 and 2:

Source	Proposal 1 (Awarded)	Proposal 2 (Declined)
A (webpage)	8 lines	
B (article)	12 lines, 1 figure, 4 references	
C (article)	5 lines	
D (article)	7 lines	
E (online dissertation)	5 lines	
F (webpage)	7 lines	
G (article)		9 lines
H (article)		2.5 lines
I (article)		1.5 lines
J (article)		6 lines
K (webpage)		2 lines
(unspecified)		2 figures
Total Unique Lines	44 lines, 1 figure, 4 references	21 lines, 2 figures

Before initiating our formal investigation, we reviewed the Subject's NSF proposal submission record and found he submitted 12 proposals since 2008. All of the proposals were submitted as Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) program proposals. We reviewed five additional proposals, including the two proposals (Proposals 4 and 6¹³) the Subject acknowledged contained copied material during the inquiry. As summarized in the chart below, we found 77 lines, 2 figures and 8 references copied from 6 sources in Proposal 3;¹⁴ 45 lines and 1 reference copied from 7 sources in Proposal 4;¹⁵ and 29 lines copied from 5 sources in Proposal 5.¹⁶

¹² Tab 5, pg 1.

¹³ Proposal 6, as explained below, is not one of the 12 proposals submitted by the Subject, but rather was submitted by another company employee.

¹⁴ Tab 6: [REDACTED] entitled [REDACTED]

¹⁵ Tab 7: [REDACTED] entitled "[REDACTED]"

¹⁶ Tab 8: [REDACTED] entitled [REDACTED]

Source ¹⁷	Proposal 3 (Declined)	Proposal 4 (Declined)	Proposal 5 (Declined)
L (article)	3 lines	4 lines	
M (article)	3 lines, 3 references		
N (article)	33 lines, 2 figures, 5 references		
O (article)	5 lines		
P (webpage)	25 lines	13 lines	
Q (webpage)	8 lines	8 lines	
R (webpage)		3.5 lines	
S (article)		7 lines, 1 reference	
T (newsletter)		6 lines	
U (report)		3.5 lines	
V (webpage)			3 lines
W (webpage)			4 lines
X (article)			14 lines
Y (report)			3.5 lines
Z (article)			4.5 lines
Total Unique Lines	77 lines, 2 figures, and 8 references	45 lines, 1 reference	29 lines

Proposal 6,¹⁸ though submitted by the same business, was submitted by a different company employee (Employee)¹⁹ as PI and is discussed further below. Proposal 7²⁰ contained *de minimis* plagiarism and was removed from the present analysis.

OIG Investigation

Because the institution is a small business, we conducted our own investigation rather than refer the matter to the institution. We informed the Subject of our investigation and asked him to address the newly identified copied text and to respond to additional questions.²¹ The Subject replied via his attorney.²²

Response to Investigation

In the response, the attorney wrote that the business “does not deny that it copied material from Source Documents L-Z into the proposals and acknowledges its error.”²³ He attributed the copying to the Subject’s methodology for writing proposals; to the business being “unaware[] of the requirement to cite the same source multiple times throughout a proposal;”²⁴ and the business’s “focus on the innovation of its proposals and its goal to provide NSF with high quality

¹⁷ Tab 9: Sources L-Z.

¹⁸ Tab 12: [REDACTED] entitled [REDACTED]

¹⁹ [REDACTED]

²⁰ [REDACTED] entitled [REDACTED]

²¹ Tab 10.

²² Tab 11. The Subject’s attorney is [REDACTED]

²³ Tab 11, pg 2.

²⁴ Tab 11, pg 2.

proposals," which led the business to believe that "the originality and creativity of its ideas was paramount to a valuable proposal."²⁵

The attorney said the Subject wrote Proposals 1 and 2 "without the assistance of anyone outside the company"²⁶ and Proposals 3-5 were drafted by the business and "subsequently reviewed by subcontractors"²⁷ prior to submission to NSF.²⁸ He said the Subject "has not taken a course on research ethics, has not been previously instructed regarding the definition of plagiarism, and has not engaged in any self-study of plagiarism."²⁹ He attended only one meeting on drafting proposals, and does not use a particular style manual.³⁰ Further, he "understood plagiarism to be copying of another's ideas or concepts and affirmatively presenting the ideas or concepts as his own" and did not understand "that relying on previous concepts or ideas to reach new conclusions without proper citation would constitute plagiarism."³¹

The attorney stated the business "never had any intent to plagiarize when submitting proposals" to NSF, reiterating that:

The ultimate conclusions set forth in the proposals are original and genuine and the sources upon which [the Subject] relied were never intended to be presented as [the business's] original ideas. The sources were not cited in the interest of brevity and as a result of [the business's] innocent neglect and ignorance of the citation rules.³²

"Given the innocuous nature" of the action, he argued, the "mistake falls under the category of 'ordinary error' rather than 'research misconduct.'"³³ To correct the research record and to resolve NSF's concerns, he provided amended Proposals 1-5³⁴ "containing appropriate citation to the sources upon which [the business] relied."³⁵

The attorney concluded that the business:

has taken corrective actions in order to ensure strict adherence to the citation requirements for future submissions. [The business] has instituted quality control procedures for citation and quotation checking and does not allow any proposals to be finalized prior to properly citing any directly quoted or paraphrased materials.³⁶

²⁵ Tab 11, pg 2.

²⁶ Tab 11, pg 3.

²⁷ Individuals from the [REDACTED]

²⁸ Tab 11, pg 3.

²⁹ Tab 11, pg 3.

³⁰ Tab 11, pg 3.

³¹ Tab 11, pg 3.

³² Tab 11, pg 1.

³³ Tab 11, pg 1.

³⁴ Tab 11, Exhibit A.

³⁵ Tab 11, pg 1.

³⁶ Tab 11, pg 6.

Analysis of Response to Investigation

To evaluate the response, we first re-reviewed the location of the copied material in Proposals 1-5. We noted the copied material was limited to background matter, product descriptions, experimental methodology, and market potential. We did not find inadequately cited material within the description of the project being proposed, confirming the Subject's claim regarding the novelty of the proposed idea.

Next, we reviewed the amended versions of Proposals 1-5 submitted with the investigation response. Although these versions would not resolve our concerns as the attorney suggested, they could provide evidence that the Subject has gained a greater understanding of appropriate citation practices. Our review of these newly annotated versions, however, indicated the Subject still does not understand how to adequately cite material he incorporates into proposals. Specifically, our review found that citations to the sources our office annotated were simply added in after part or all of the verbatim text. Verbatim text still lacked demarcation (e.g., quotation marks or indentation);³⁷ verbatim text was not paraphrased; citations often still were not repeated after each segment copied from that source;³⁸ and embedded references remained embedded.³⁹ Additionally, although the Subject himself informed us during the inquiry that Figures 3 and 4 in Proposal 2 were also copied, these figures were not cited in the amended version.

We then examined the Subject's current CV⁴⁰ to assess his research and educational background. The CV indicated the Subject received his Bachelor's, Master's and Ph.D. degrees outside the United States.⁴¹ However, it further showed that since 1999, all of his employment, including a position as a postdoctoral assistant,⁴² was in the United States. Similarly, it showed the Subject served as co-author and/or primary author of 20 publications, all of which were English-language publications.⁴³

To determine the standards of the Subject's research community, we first examined the standards of his previous two employers.⁴⁴ One employer⁴⁵ does not include policies regarding research misconduct on its website while the other employer⁴⁶ did not have an active website. We then reviewed the standards of the journal in which the Subject has most recently published: the 2008, 2007, 2005, and 2002 proceedings of a professional society.⁴⁷ The society's publication guidelines state:

³⁷ E.g., Proposal 3, Source P.

³⁸ E.g., Proposal 4, Source P2.

³⁹ E.g., Proposal 3, Source M.

⁴⁰ Tab 11, Exhibit B.

⁴¹ [REDACTED]

⁴² [REDACTED]

⁴³ Of these 20 publications, the Subject is first author of only six. Because all 20 publications have multiple authors, we did not examine them for plagiarism as any copied text identified would be inconclusive regarding its author.

⁴⁴ Although [REDACTED] currently does have a research misconduct policy and responsible conduct of research training, we could not confirm these standards were applicable during the Subject's postdoctoral service.

⁴⁵ [REDACTED]

⁴⁶ [REDACTED]

⁴⁷ [REDACTED]

Plagiarism constitutes unethical scientific behavior and is never acceptable. Proper acknowledgment of the work of others used in a research project must always be given. Further, it is the obligation of each author to provide prompt retractions or corrections of errors in published works.⁴⁸

Given the field in which the Subject currently conducts research, the guidelines presented are those under which the Subject should be knowledgeable.⁴⁹

Proposal 6

As explained above, in his initial inquiry response, the Subject said two other of his company's NSF proposals also contained inadequately cited text. One of these proposals was Proposal 6,⁵⁰ which the Employee submitted as PI. Our initial analysis found approximately 59 unique lines and one figure copied from eight sources⁵¹ in Proposal 6, as illustrated below:

Source	Proposal 6 (Declined)
A (webpage)	20 lines
B (webpage)	8 lines
C (webpage)	8 lines
D (webpage)	2 lines
E (patent-webpage)	11 lines, 1 figure
F (article)	3 lines
G (webpage)	5 lines
H (webpage)	2 lines
Total Unique Lines	59 lines, 1 figure

As part of our review, we contacted the Employee, who responded via his attorney.⁵² The response⁵³ indicated the Subject drafted Proposal 6, provided the draft to the Employee for editing,⁵⁴ and then submitted Proposal 6 with the Employee as PI. Specifically, the attorney provided a copy of the draft the Subject provided the Employee, a copy of the proposal tracking the changes the Employee made, and an email between the Subject and the Employee detailing each segment's original version relative to the Employee's edits.⁵⁵ Based on the evidence and

⁴⁸ [REDACTED]

⁴⁹ Neither the Subject's CV nor Biographical Sketch contains information about the Subject's professional society membership so we did not consider such standards in our analysis.

⁵⁰ Tab 12 [REDACTED] entitled [REDACTED] PI: Employee.

⁵¹ Tab 13: Sources A-H.

⁵² Attorney [REDACTED], also represented the Employee.

⁵³ Tab 14.

⁵⁴ In his response, the attorney wrote: "In the proposal preparation process, [the Employee]'s role was to focus on the scientific/technical merits and soundness of the proposal as well as English (spelling, typographical errors, and clarity). Unfortunately, [he] did not pay close attention to the lack of citations."

⁵⁵ Tab 14.

our analysis, we found that all of the copied material was contained without citation or demarcation in the draft document the Subject provided the Employee. Any changes the Employee made often served to (unknowingly) mitigate the copied text by either adding or removing words or strings of words from segments of verbatim copied text the Subject had inserted in the draft. As such, Proposal 6 is included in the current analysis with the copied text attributed to the Subject.

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.⁵⁶

The Acts

Our review found the Subject plagiarized 275 lines, 6 figures, and 13 references from 34 sources⁵⁷ into 6 proposals. OIG concludes 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 a false representation of his knowledge of the research area.

OIG found the Subject's actions constituted a significant departure from accepted practices of his professional community.

Intent

We conclude the Subject acted recklessly in plagiarizing material. The Subject, who operates within a very small business rather than academic context, lacked the oversight and guidance needed to ensure the integrity of his proposals, a flaw he now recognizes and is taking measures to correct. The Subject seemingly developed his grant-writing techniques in an *ad hoc* manner, with no way of knowing the sufficiency or appropriateness of the practices, and no apparent concern about that lack of knowledge. Last, the Subject's method of proposal preparation – taking notes by copying verbatim text from others' publication without consistently noting its source – is itself a reckless way of incorporating others' ideas and words into one's own proposal. We therefore 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.

⁵⁶ 45 C.F.R. §689.2(c).

⁵⁷ Of the 34 sources, 15 were webpages, 15 were articles, 1 was an online dissertation, 1 was a newsletter, and 2 were reports. The unspecified source identified in Proposal 2 is not included in the total source count.

OIG concludes that the Subject, by a preponderance of the evidence, recklessly plagiarized, thereby committing an act of research misconduct.⁵⁸

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.⁵⁹

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 merit.

Degree to which Action was Reckless

OIG finds that the Subject acted recklessly. A reasonable person would be expected to know that using verbatim text without demarcation was not acceptable. We believe the Subject's lack of appreciation for scholarly standards in NSF proposals went beyond mere carelessness. Given the Subject's lack of training, adequate guidance, and institutional oversight, we do not believe his actions rise to a level of knowing. We therefore conclude that his actions were distinctly reckless.

Pattern

The plagiarism contained in the six NSF proposals clearly displayed a pattern of plagiarism.

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;⁶⁰

⁵⁸ 45 C.F.R. part 689.

⁵⁹ 45 C.F.R. § 689.3(b).

⁶⁰ A letter of reprimand is a Group I action (45 C.F.R. §689.3(a)(1)(i)).

- require the Subject to certify to OIG's Assistant Inspector General for Investigations (AIGI) that proposals or reports he submits to NSF do not contain plagiarized material for 2 years;⁶¹ and
- 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.⁶²

⁶¹ Certification by an individual is a final action that is comparable to the final actions listed in 45 C.F.R. §689.3(a).

⁶² Completing an ethics course is a final action that is comparable to the final actions listed in 45 C.F.R. §689.3(a).

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230



OFFICE OF THE
DIRECTOR

JAN 5 2012

CERTIFIED MAIL --RETURN RECEIPT REQUESTED

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

Re: Notice of Research Misconduct Determination -- [REDACTED]

Dear Mr. [REDACTED]:

It is our understanding that you represent Dr. [REDACTED], an employee of [REDACTED]. From 2007-2010, Dr. [REDACTED] either served as a Principal Investigator ("PI") on, or otherwise participated in the preparation of, six proposals submitted for funding to the National Science Foundation ("NSF"). As documented in the attached Investigative Report prepared by NSF's Office of Inspector General ("OIG"), these proposals 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).

The six proposals contained 275 unique lines of text, six figures, and 13 references copied from 34 source documents. By submitting proposals to NSF that copied the ideas or words of another without adequate attribution, as described in the OIG Investigative Report, Dr.

██████ misrepresented someone else's work as his own. His conduct unquestionably constitutes plagiarism. I therefore conclude that his 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, Dr. ██████ 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 Dr. ██████

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 his misconduct was part of a pattern of plagiarism, as well as other relevant circumstances. 45 CFR § 689.3(b).

After assessing the relevant facts and circumstances of this case, I am taking the following actions against Dr. ██████

- (1) Until December 15, 2013, Dr. ██████ must provide certifications to the OIG that any proposal or report that he submits to NSF as a PI or co-PI does not contain plagiarized, falsified, or fabricated material; and
- (2) By December 15, 2012, Dr. ██████ must attend an ethics training course, which includes a discussion on citation practices, and must provide a certificate of attendance to the OIG that he has completed such a course.

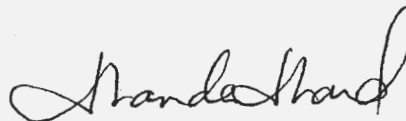
The certifications and certificate of attendance should be submitted in writing to OIG, Associate Inspector General for Investigations, 4201 Wilson Boulevard, Arlington, Virginia 22230.

Procedures Governing Appeals

Under NSF's regulations, Dr. [REDACTED] has 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 his 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 black ink, appearing to read "Wanda Ward", with a stylized, flowing script.

Wanda Ward
Senior Advisor to the Director

Enclosures

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