



NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL
OFFICE OF INVESTIGATIONS

CLOSEOUT MEMORANDUM

Case Number: A10060041

Page 1 of 1

OIG conducted an inquiry into an allegation that the Subject¹ submitted NSF proposals containing copied material. We reviewed 18 proposals and four final project reports the Subject submitted to NSF and identified copied material. The Subject's response to our inquiry did not dispel the allegation.

Because the submitting organizations were small business, we conducted our own investigation, which focused on three awarded proposals² and on one declined proposal.³ We concluded, based on a preponderance of the evidence, that the Subject knowingly committed plagiarism in four NSF proposals, deemed a significant departure from accepted practices, and 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.

¹

² Proposal 1:

Proposal 2:

Proposal 3:

" and

³ Proposal 4:

NATIONAL SCIENCE FOUNDATION

4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230



OFFICE OF THE
DEPUTY DIRECTOR

JAN 22 2013

VIA CERTIFIED MAIL/RETURN RECEIPT REQUESTED

[REDACTED]
[REDACTED]
[REDACTED]

Re: Notice of Research Misconduct Determination

Dear Dr. [REDACTED]:

From [REDACTED] through [REDACTED], you served as a Principal Investigator ("PI") on four SBIR Phase I proposals submitted for funding to the National Science Foundation ("NSF") entitled, [REDACTED], [REDACTED], and [REDACTED]. 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).

Your proposals contained 294 unique lines of text, two figures, and 59 embedded references copied from 23 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, 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 knowingly 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 knowingly. I have also considered the fact that your misconduct was part of a pattern of plagiarism. 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 taking the following actions against you:

- (1) Until January 15, 2015, you must provide certifications to the OIG that any proposal or report you submit to NSF as a PI or co-PI does not contain plagiarized, falsified, or fabricated material; and
- (2) By January 15, 2014, you must complete an ethics course, which includes discussion on citation practices, within one year and provide proof of its completion to the OIG.

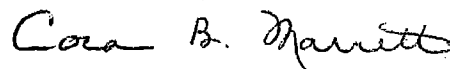
The certifications and written proof of training should be submitted in writing to NSF's OIG, Associate Inspector General for Investigations, 4201 Wilson Boulevard, Arlington, Virginia 22230.

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 that reads "Cora B. Marrett".

Cora B. Marrett
Deputy Director

Enclosures

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

National Science Foundation Office of Inspector General



Confidential Report of Investigation Case Number A10060041 11 September 2012

**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 86 sources from which approximately 813 unique lines were copied into 18 NSF proposals and four final project reports.

OIG

Investigation: OIG focused its investigation on three awarded and one declined proposals. We concluded, based on a preponderance of the evidence, that the Subject knowingly committed plagiarism, and that the plagiarism constituted a significant departure from accepted practices of her professional community.

OIG**Assessment:**

- **The Act:** The Subject plagiarized 294 unique lines, two figures, and 59 embedded references from 23 sources into the four NSF proposals.
- **Intent:** The Subject acted knowingly.
- **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:** A pattern of plagiarism was identified in the proposals the Subject submitted prior to the investigation.

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

OIG's Inquiry

OIG conducted an inquiry into an allegation that the Subject¹ submitted NSF proposals containing copied material. We reviewed 18 proposals (four awarded; 13 declined; and one returned without review) and four final project reports the Subject submitted to NSF between [REDACTED] and [REDACTED].² Seventeen of the proposals³ named the Subject as PI and were submitted by small businesses.⁴ Our initial analysis identified a total of 813 unique lines of text copied from 86 sources⁵ in the proposals and reports.

We contacted the Subject about the allegation.⁶ In her response,⁷ she said "All the innovations, ideas, research, processes and results are mine and of people I worked with for the proposals submitted to NSF."⁸ She said she "did not intentionally use any other person's words without giving appropriate credit",⁹ and argued the sources were either properly cited, contributions from collaborators,¹⁰ or common or technical language.¹¹ The Subject concluded:

My research in emerging areas is one of the foremost in the field published in reputable journals and cited over 300 times. My work does not contain materials copied from other people, work or ideas. A computer generated program might find identical 7 words in a row or similar text, but a closer look will show that the text was properly cited or contains basic technological text and expressions widely used in the literature.¹²

We reviewed the Subject's response and determined it did not dispel the allegations. Specifically, the Subject acknowledged instances of inadequate citation within her proposals and did not contest having included the material. We concluded there was sufficient evidence to proceed with an investigation.

¹ [REDACTED]

² Tab 1 contains the 18 proposals and four reports. The proposals include: [REDACTED]
[REDACTED] and [REDACTED]
(all declined); and [REDACTED] (returned without review). The reports are from the awarded proposals.

³ The Subject was Co-PI on [REDACTED] entitled [REDACTED]
[REDACTED] which was submitted by [REDACTED]

⁴ [REDACTED] and [REDACTED]

⁵ Tab 2.

⁶ Tab 3.

⁷ Tab 4.

⁸ Tab 4, pg 1.

⁹ Tab 4, pg 1.

¹⁰ Tab 4, pg 3. All quotations herein are *sic*.

¹¹ Tab 4, pg 1.

¹² Tab 4, pg 3.

OIG Investigation

Because the submitting organizations were small businesses, OIG conducted its own investigation rather than refer the matter to the businesses. We informed the Subject of our investigation and asked her to answer written questions.¹³

Given the breadth of proposals examined and the need to carefully evaluate documents relative to the Subject's response, we focused the investigation on three awarded proposals (Proposals 1-3)¹⁴ and on one declined proposal (Proposal 4)¹⁵ that contained the most significant plagiarism and that did not identify Co-PIs on their cover pages. From these four proposals, we identified 294 unique lines, two figures, and 59 embedded references copied from 23 sources:

Proposal 1

Source A (article)	2.5 lines
Source B (article)	13 lines
Source C (article)	8 lines
Source D (article)	2 lines
Source E (article)	8.5 lines
Source F (article)	10 lines, 4 embedded references
Source G (article)	6 lines, 2 embedded references
Source H (article)	12 lines
Source I (article)	20 lines
Total (unique)	82 lines, 6 embedded references

Proposal 2

Source Y (article)	7 lines, 1 figure
Source Z (article)	2 lines, 1 figure
Source AA (article)	9 lines, 4 embedded references
Source BB (article)	2 lines
Source CC (website)	4 lines
Total (unique)	24 lines, 2 figures 4 embedded references

¹³ Tab 5.

¹⁴ Proposal 1: [REDACTED] and

Proposal 2: [REDACTED]

Proposal 3: [REDACTED]

¹⁵ Proposal 4: [REDACTED]

Proposal 3

Source L (article)	50 lines, 5 embedded references
Source M (website)	6 lines
Source N (article)	65 lines, 34 embedded references
Source O (article)	2 lines
Total (unique)	123 lines, 39 embedded references

Proposal 4

Source NN (program description)	13 lines
Source OO (article)	18 lines, 9 embedded references
Source QQ (article)	2 lines
Source RR (article)	29 lines, 1 embedded reference
Source SS (report)	3 lines
Total (unique)	65 lines, 10 embedded references

We found that copied material either was not cited at all or was cited inadequately. For example, Source L is cited in Proposal 3's "Works Cited" as source 10; however, the citation is not clearly linked to the totality of copied text, and the text is not demarcated as verbatim from its source. Additionally, in some cases, we found that individuals the Subject named in her inquiry response as proposal contributors were not named in the proposal or the project final report. For example, the Subject told us that that an author of Source N¹⁶ collaborated with her on Proposal 3, which included 65 lines, 34 embedded references from Source N. Proposal 3 made only passing reference to the Source N co-author's laboratory, in no way indicating that his article was the source of the copied text.¹⁷ An intention to collaborate did not relieve the Subject of the obligation to clearly distinguish her own text from others'.

Because Proposals 1-3 were funded and contained copied text, we examined whether the copied text was material to NSF's funding decisions. We determined Proposals 1 and 2's copied text was contained primarily in the proposals' background sections, and was not material to the proposed research. Although Proposal 3 contained copied material in Task 2 of its "Work Plan,"¹⁸ the copied material did not constitute the substance of the proposed work. We concluded that the copied text in Proposals 1-3 was not material to NSF's funding decisions.

In the Subject's written response, regarding the few "citing errors" that she acknowledged, she argued that they "were involuntarily committed. I did not have any intention of plagiarizing, or knowingly try to pass others' work as my own."¹⁹ She added she had received no "formal training on properly citing references"²⁰ and that:

¹⁶ [REDACTED]

¹⁷ Tab 7, Proposal 3, pg 14 of the project description.

¹⁸ Tab 7, Proposal 3, pg 5-9 of the project description.

¹⁹ Tab 6, Response to Investigation Letter 1.

²⁰ Tab 6, Response to Investigation Letter 1.

My understanding was and is, that plagiarism occurs when a person copied verbatim another person's work, or uses their ideas (which are not common knowledge) without properly giving credit to the author. The plagiarized work includes verbal and written word, which can derive from speeches, lectures, articles, blogs, websites, recorded material, etc.²¹

She concluded that her lack of knowledge and education regarding proper citation contributed to the plagiarism,²² but that "I understand now that in order for someone to know which text is my own and which is copied, that it has to be properly cited."²³

To understand the standards of the Subject's research community, we first reviewed websites of three professional societies²⁴ of which the Subject is a current or former member. We found they contained no guidance or policies regarding research standards of conduct or misconduct. Our review of the standards of the leading U.S. professional association in the Subject's field,²⁵ however, did identify explicit standards of conduct. The association, which publishes four of the journals that the Subject referred to as "high impact"²⁶ and in which the Subject has published, has an Ethics Committee website²⁷ that contains the association's code of conduct, publication guidelines, and a specific statement on "Plagiarism: Intellectual Property Rights."²⁸ The guidelines state: "An author should identify the source of all information quoted or offered, except that which is common knowledge."²⁹

We reviewed the Subject's educational and professional history.³⁰ According to her CV, the Subject is a seasoned researcher and educator, with over 25 years of experience. Although the Subject received her undergraduate and graduate education outside the U.S.,³¹ she conducted a four year post-doc at a highly reputable U.S. institution³² and currently serves as Associate Director of a center in that same institution.³³ Although the five books she co-authored are not written in English, thirty of the 47 articles are.

²¹ Tab 6, Response to Investigation Letter2, Letter, pg 2.

²² Tab 6, Response to Investigation Letter1.

²³ Tab 6, Response to Investigation Letter1.

²⁴ Her CV states that her memberships have included the [REDACTED] and [REDACTED]

[REDACTED] (Tab 6, Response to Investigation Letter2, Appendix 1, pg 4.)

²⁵ [REDACTED]

²⁶ Tab 6, Response to Investigation Letter2, Appendix 1, pg 1.

²⁷ [REDACTED]

[REDACTED]

[REDACTED]

²⁸ [REDACTED]

²⁹ [REDACTED]

³⁰ Tab 6, Response to Investigation Letter2, Appendix 1.

³¹ [REDACTED]

³² [REDACTED]

³³ [REDACTED]

We determined the Subject exhibited a pattern of plagiarism, in that eighteen proposals on which the Subject was PI or Co-PI contained plagiarism. Our review of her most recent NSF proposal,³⁴ submitted during our investigation, identified no inadequately cited text.

OIG's Assessment

Under NSF's Research Misconduct regulation:

Research misconduct means fabrication, falsification, or plagiarism in proposing or performing research funded by NSF, reviewing research proposals submitted to NSF, or in reporting research results funded by NSF.

...
Plagiarism means the appropriation of another person's ideas, processes, results or words without giving appropriate credit.³⁵

A finding of research misconduct by NSF 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 the evidence.³⁶

The Acts

Our review found the Subject copied 294 lines, two figures, and 59 references from 23 sources into funded Proposals 1-3 and declined Proposal 4. OIG concludes the Subject's actions constitute plagiarism under NSF's definition. In offering material composed by others as her own, the Subject misrepresented her own efforts and presented reviewers with an incorrect measure of her abilities.

Based on the articulated ethical standards of the preeminent U.S. professional society in Subject's field of research, we conclude that the Subject's acts of plagiarism constituted a significant departure from accepted practices.

Intent

The act of copying and pasting text—especially including numerous embedded references which must be copied separately from the text—is intrinsically knowing conduct. The Subject did not contest she included material from sources, but rather argued that much of the material was adequately cited. We found, however, that none of the highlighted text in Proposals 1-4 was properly cited. Although the Subject operates small businesses, she was a post-doc for four years and has also operated in a management position within an academic context, in which

³⁴ [REDACTED]

³⁵ 45 C.F.R. § 689.1(a)(3).

³⁶ 45 C.F.R. § 689.2(c).

she is required to know and comply with the requirements for academic integrity. We therefore conclude the Subject acted knowingly.

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, knowingly plagiarized, thereby committing an act of research misconduct.

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.³⁷

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. While the quantity of plagiarized material was significant, it was neither extremely extensive nor material to NSF's funding decisions.

Pattern

We identified an extensive pattern of plagiarism in the proposals the Subject submitted to NSF.

Impact

The Subject's actions did not have a significant impact on the research community. The copied material was not material to the decision to fund in those proposals that were awarded, and the copied material in the unfunded proposals did not serve to get the proposals funded and was never publicly available.

³⁷ 45 C.F.R. § 689.3(b).

Other Relevant Circumstances

We are troubled by the Subject's various arguments that she did not commit plagiarism. While the most recent proposal she submitted to NSF did not contain plagiarism, it is not mitigating in light of the fact that the proposal was submitted while she was aware of our investigation and scrutiny of her submissions to NSF.

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;³⁸
- require the Subject to certify to OIG's Assistant Inspector General for Investigations that proposals or reports he submits to NSF do not contain plagiarized material for 2 years;³⁹ 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.⁴⁰

³⁸ A letter of reprimand is a Group I action (45 C.F.R. §689.3(a)(1)(i)).

³⁹ Certification by an individual is a final action that is comparable to the final actions listed in 45 C.F.R. §689.3(a).

⁴⁰ Completing an ethics course is a final action that is comparable to the final actions listed in 45 C.F.R. §689.3(a).