

NATIONAL SCIENCE FOUNDATION OFFICE OF INSPECTOR GENERAL OFFICE OF INVESTIGATIONS

CLOSEOUT MEMORANDUM

Case Number: A12100067

Page 1 of 1

During our proactive review, we identified a funded proposal that contained verbatim text without appropriate credit¹. During our inquiry, we found additional copied text in three other proposals submitted to NSF by the PI². We referred the allegation to the PI's university, which made a finding of research misconduct and required the PI to participate in training on the responsible conduct of research and provide written internal assurances to the university for three years. The PI was also issued a formal reprimand.

We concurred with the university's finding and concluded, based on a preponderance of the evidence, that the PI knowingly committed plagiarism, which was a significant departure from accepted practices. We recommended NSF make a finding of research misconduct and take actions to protect the federal interest. The Deputy Director agreed and took appropriate action. Accordingly, this case is *closed* with no further action taken. The closeout documents consist of this Memorandum, the attached Report of Investigation, and NSF's adjudication.



National Science Foundation Office of Inspector General



Report of Investigation Case Number A12100067 September 19, 2014

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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 in four NSF proposals, one of which was awarded.

Inquiry:

Our proactive review of awarded proposals identified a proposal containing copied text. We also identified three declined proposals containing copied text. All four proposals had a single PI in common. We contacted the PI, who accepted responsibility for the authorship of the proposals. We referred the allegation to the PI's institution for investigation.

University
Investigation and
Action:

The University assembled an *ad hoc* investigation committee, which determined that the PI committed the act of plagiarism and that it was a significant departure from accepted practices. However, the committee concluded the PI's actions were careless and did not warrant a finding of research misconduct. The deciding official disagreed with the committee's assessment of intent and found that the PI acted recklessly and required remedial training and an internal certification for three years.

OIG's
Assessment:

- The Act: Plagiarism in four NSF proposals, one of which NSF awarded.
- **Significant Departure:** The plagiarism was a significant departure from the accepted practices of the relevant research community.
- Intent: The PI acted recklessly.
- **Standard of Proof:** The preponderance of the evidence supports a finding of research misconduct.

OIG Recommendation:

- Make a finding of research misconduct.
- Require the Subject to certify completion of a responsible conduct of research training program and provide documentation of the program's content within one year of NSF's finding.
- Bar the Subject from participating as a peer reviewer, advisor, or consultant for NSF for two years.
- Require the Subject submit a contemporaneous certification to the AIGI that each document submitted does not contain plagiarism, falsification, or fabrication for two years.
- Require the Subject submit a contemporaneous certification, from an responsible official of her employer, to the AIGI that each document submitted does not contain plagiarism, falsification, or fabrication for two years.

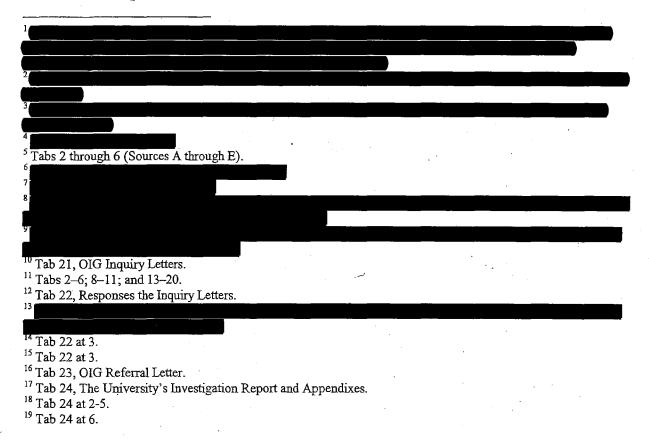
OIG's Inquiry

We identified a proposal (Proposal 1)¹ submitted by a PI (the Subject)² and a CoPI³ at the University⁴ containing text identical to or substantially similar to text in 5 published articles.⁵ The proposal was a collaborative proposal with another PI (Collaborator)⁶ at a neighboring institution.⁷ We reviewed additional proposals and found two proposals (Proposal 2⁸ and Proposal 3⁹) which contained material identical to or substantially similar to previously published materials. We contacted the Subject, the CoPI, and the Collaborator for their perspectives on their relative involvement in writing the three proposals¹⁰ containing copied text from Sources A through Q.¹¹

All three responses attributed responsibility for the authorship of the proposals to the Subject. The CoPI noted that Proposal 2 was a resubmission of another proposal (Proposal 4). The Subject asserted that she had "attributed accordingly to the authors directly or indirectly" and that the sources are "strictly either background information or existing solution tools." She also asserted that she "made NO attempts to claim another's novel ideas or results to be [her] own." She provided additional articles to support her position but none demonstrated that the text was technically constrained to the text in common with the sources. Because her response did not adequately dispel the allegation, we referred an investigation to the University. In

The University's Investigation¹⁷

Under its policy, ¹⁸ the University conducted an initial assessment of the allegation using the materials we provided. ¹⁹ That assessment resulted in a recommendation to conduct a full



investigation and the University assembled an *ad hoc* investigation committee (the IC) to review the matter.

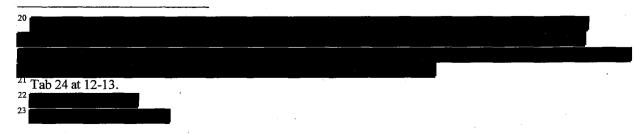
The IC reviewed the materials we provided, interviewed the Subject, and selected a publication and a conference paper at random to assess for pattern. The IC noted that subsets of the passages identified in Proposal 2 are "short or piecemeal, such that they would not be considered to be outright copying." Similarly for Proposal 3, the IC found some passages "are short and interspersed with different text, such that there would be a degree of subjectivity regarding whether or not they are instances of copying." The IC examined the publication and conference paper for plagiarism, finding none and thus concluding the three proposals were isolated events. However, the IC provided no documentation in the report to support its negation of pattern.

The IC reports that two of its members interviewed the Subject who "stated that the evolution of the proposals was through a series of interactions with the other team members involving cutting and pasting of material (lack of follow-through on including all references) and that she was unaware of the need for explicit quotations for text that is directly copied when preparing a proposal." The IC included no transcript or interview notes to document the Subject's interview.

The IC concluded that the Subject's actions met the definition of plagiarism and constituted a significant departure from the accepted practices of the relevant research community. However, the IC concluded that the Subject was careless, noting in particular "a lack of originality in the written narrative, and thus, a manifestation of poor writing style." It is the repetition of this "error" that leads the IC to find the Subject "was naive regarding the appropriate practices of citations and consequences of improper citation."

The University's Actions²¹

The Vice President of Research and Dean of Graduate Affairs²² reviewed the IC report and concluded the Subject had committed plagiarism, "a significant departure from the practices of the relevant discipline as well as the norms of our campus" but disagreed with the IC's finding that the plagiarism was a result of carelessness "given that the issue occurred repeatedly in multiple proposals." He determined there was sufficient evidence to warrant a finding of research misconduct, finding that the Subject had met the threshold of at least reckless intent. He did not specify the level of intent, instead noting "intent within these types of cases can be very difficult if not impossible to determine, but I am more likely to believe that either haste or a general lack of concern are more likely reasons rather than a lack of knowledge about proper citation methods." He recommended that the Deciding Official²³ make a finding of research misconduct; the Deciding Official concurred with the recommendation and required the Subject to participate



in training and provide internal assurances for three years. The Subject was also issued a formal reprimand.

OIG's Investigation and Assessment

We notified the Subject of our receipt of the University report and invited her comments as we resumed our investigation.²⁴ We reviewed the IC report and concluded that the University investigation followed reasonable procedures in conducting its investigation. However, we determined that although the IC's report is accurate, it is not complete. The Subject was interviewed, as is customary, but the interview was not recorded or transcribed, and no documentation was provided to our office regarding that interview. In addition, the IC did not specify which culpable level of intent it determined had been exhibited by the Subject.

In response to a follow up email²⁵, the Vice President of Research clarified that the University, based on a preponderance of the evidence, found the Subject recklessly committed plagiarism, a culpable level of intent.

In order to ensure a complete record and a full opportunity for comment, we interviewed the Subject in person to ascertain her perspective on the allegation and the IC's report²⁶. During the interview, she emphasized the novelty of the research proposed in her submissions and indicated she had been unaware of proper citation practices. Although the Subject stated she had earned her graduate and undergraduate degrees at institutions in the United States²⁷ and has been "publishing fairly regularly", she stated that she had never received any mentorship with regard to the proposal preparation process, and had never received training on proper citation practices or the responsible conduct of research. When drafting her first published conference article, she stated "it was all senior lab-mates who helped [her] ... to put a [paper] together," noting that her advisor was busy setting up his private company at the time. In fact, she asserted she was unaware of the term "research misconduct" until she was contacted by NSF OIG. Despite this lack of training, the Subject served a panelist for NSF "two or three times" over the course of six or seven years. She is also a reviewer for a journal.²⁸

The Subject admitted to preparing the proposal under a strict deadline and stated that although she did copy and paste verbatim sections of text into her proposals, "any reviewer...reading the proposal... in no way would be confused that I am trying to... say that these are my ideas or my thoughts or my processes." Furthermore, she asserted she "honestly didn't know" that quotation marks should be used to distinguish others' words from her own, no matter how much material had been copied and pasted. Although the Subject correctly asserted

Tab 28, Letter Inviting Comment on IC Report.

Tab 25, University Clarification of Report.

Audio recording of interview available in OIG files.

that a number of the source documents were included in the reference section, the text taken from these sources was neither indented nor set apart in any way with quotation marks.

Although the Subject contends she was unaware that verbatim copying was unacceptable, she was able to implement proper citation practices at times, such as in the journal articles reviewed by the IC. It is clear that she did not demonstrate that higher standard of scholarship in her submissions to NSF.

The Subject's emphasis on the novelty of the ideas presented in the proposal does not negate her use of the unattributed words of other's to present those concepts. In total, the four NSF proposals analyzed contained 252 lines of unique copied text, 17 embedded references, and 1 copied figure. The following table illustrates the extent of the Subject's use of others' text without proper attribution:

Proposal	Lines of copied text	Lines of unique copied text	Copied embedded references	Copied figures
1 ³⁰	95	95	12	1
2 ³¹	77	77	0	0
3 ³²	68	68	3	0
4 ³³	107	12	2	1
Totals	347	252	17	2

A finding of research misconduct requires that: (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 proven by a preponderance of the evidence.³⁴

The Acts

The University found, by a preponderance of the evidence, that the Subject plagiarized material "on multiple occasions." The Subject did not dispute this allegation. Our review found the Subject copied 252 lines of unique copied text, 17 embedded references, and 1 copied figure into 4 NSF proposals. The NSF Grant Proposal Guide is clear: "NSF expects strict adherence to the rules of proper scholarship and attribution. The responsibility for proper attribution and citation rests with authors of a proposal; all parts of the proposal should be prepared with equal

³⁰ Tab 1, ³¹ Tab 7, ³² Tab 12,

³³ Tab 26, ³⁴ 45 C.F.R. §689.2(c).

care for this concern."³⁵ Consequently, by failing to appropriately distinguish verbatim copied text from her own original text, the Subject presented the work of others as her own and, thus, failed to give appropriate credit to the actual authors. The Subject acknowledged she copied without attribution; the Committee and University concluded the Subject's unattributed copying was plagiarism. OIG concurs and concludes the Subject's copying of text without attribution meets NSF definition of plagiarism.

Intent

The University rejected the IC's conclusion that the plagiarism resulted from carelessness and found the Subject acted with a culpable level of intent in plagiarizing text "given that the issue occurred repeatedly in multiple proposals." It determined the Subject showed "either haste or a general lack of concern" in her proposal preparation and rejected her explanation that the plagiarism stemmed from a lack of training. The University noted that some references to source articles were included in the proposal, but determined the Subject acted recklessly in not distinguishing and appropriately citing text taken from others. The University concluded her plagiarism was committed with a culpable level of intent; we concur.

Significant Departure

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 IC's finding that the plagiarism "was a significant departure from accepted practices of the research community" and the University's conclusion that the plagiarism was "a significant departure from the practices of the relevant discipline as well as the norms of our campus," we conclude the Subject's acts of plagiarism constituted a significant departure from accepted practices.

Standard of Proof

We conclude that a preponderance of the evidence proves that the Subject recklessly plagiarized, thereby committing research misconduct.³⁶

OIG's Recommended Disposition

In deciding what actions are appropriate when making a finding of research misconduct, NSF should consider several factors, ³⁷ three of which are discussed below.

Seriousness

As noted above, we concluded a preponderance of the evidence supports the conclusion that the Subject acted culpably when she plagiarized material into her proposals. 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

³⁵ NSF Grant Proposal Guide, Chapter 1, Section D.3.

³⁶ 45 C.F.R. §689.

³⁷ 45 C.F.R. §689.3(b).

inaccurate representation of a proposal's merit. While the plagiarized text did not have an impact on the published research record, the quantity of plagiarized passages was significant and found in four of her NSF proposals. The Subject's plagiarism is rendered even more serious by the fact that she serves as a reviewer for a journal and as a panelist for NSF. Furthermore, we find it troubling that the Subject did not plagiarize in her published works, but plagiarized repeatedly in proposals submitted to NSF. We conclude the quantity of plagiarized material is sufficiently serious to warrant a finding of research misconduct.

Pattern and Impact

The University noted that the Subject's use of unattributed text "occurred repeatedly in multiple proposals." We concur that the Subject's copying in Proposals 1, 2, 3, and 4 demonstrates a pattern of plagiarism.

The effect on the research record as a result of the Subject's actions is moderate. Proposal 1, which was funded, includes substantive plagiarism (approximately 95 lines of plagiarized text), is available to the public through a Freedom of Information Act request. Proposals 2, 3, and 4 were declined, so they have minimal impact.

The Subject's Response to OIG's Draft Investigation Report

We provided the Subject with a copy of our draft investigation report and attachments for comment. In the Subject's response³⁸, she raised a number of objections. First, the Subject asserts that "due process was not followed" because the Vice President of Research "did not contact [her] for a meeting and never informed [her] of his decision to portray [her] intent in committing plagiarism differently than the IC." We consider this a University matter and not pertinent to NSF's investigation/adjudicative processes. We note that the Subject has been afforded several opportunities to provide comments and rebuttal during NSF OIG's investigation. Subsequent to the completion of the University's investigation and our receipt of the University's report, we traveled to the Subject's institution to interview her in person. In addition, the Subject was able to provide comments to this report, which have been integrated herein. Furthermore, upon receipt of a University report of investigation, NSF OIG independently evaluated the factual record to determine whether research misconduct occurred, assessed its extent and consequences, and evaluated appropriate action to recommend.

The Subject also argued again that although she "readily admits" to submitting proposals containing plagiarized text, "no part of the proposal where I have described my original research idea and plan of execution was copied." She maintains that her inclusion of copied text in these proposals was due to ignorance of proper procedures, rather than intent to deceive the reader, arguing that a reckless level of intent is not supported. As set forth above, the University concluded that the Subject acted recklessly, and NSF OIG concurs that the Subject's failure to follow proper citation practices was committed with a culpable level of intent.

The Subject's response did not provide adequate reason for OIG to change its original determinations and recommendations.

³⁸ Tab 29

Recommendations³⁹

Based on the evidence, OIG recommends that NSF:

- Send the Subject a letter of reprimand notifying her that NSF has made a finding of research misconduct.⁴⁰
- Require the Subject certify to the Assistant Inspector General for Investigations (AIGI) her completion of a responsible conduct of research training program and provide documentation of the program's content within one year of NSF's finding.⁴¹ The instruction should be in an interactive format (e.g., an instructor-led course) and specifically address plagiarism and appropriate attribution of sources.

Furthermore, for a period of two years immediately following NSF's finding:

- Bar the Subject from participating as a peer reviewer, advisor, or consultant for NSF. 42
- Require for each document (proposal, report, etc.) to which the Subject contributes for submission to NSF (directly or through her institution),
 - the Subject submit a contemporaneous certification to the AIGI that the document does not contain plagiarism, falsification, or fabrication.⁴³
 - the Subject submit contemporaneous assurances from a responsible official of her employer to the AIGI that the document does not contain plagiarism, falsification, or fabrication.

³⁹ 45 C.F.R §689.6(f) and §689.9(c)(2)(ii).

⁴⁰ A Group I action 45 C.F.R. §689.3(a)(1)(i).

⁴¹ This action is similar to Group I actions 45 C.F.R. §689.3(a)(1).

⁴² A Group III action 45 C.F.R. §689.3(a)(3)(ii).

⁴³ This action is similar to 45 C.F.R §689.3(a)(1)(iii).

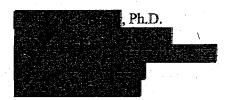
⁴⁴ A Group I action 45 C.F.R. 689.3(a)(1)(iii).

NATIONAL SCIENCE FOUNDATION 4201 WILSON BOULEVARD ARLINGTON, VIRGINIA 22230



FEB 2 6 2015

CERTIFIED MAIL_RETURN RECEIPT REQUESTED



Re: Notice of Research Misconduct

Dear Dr.

As an Associate Professor in the Department of at a ("University"), you submitted four proposals to the National Science Foundation ("NSF"), one of which was funded. As documented in the attached Investigative Report, these proposals contained a significant amount of copied text, approximately 347 lines, without proper attribution.

The OIG Investigative Report describes in detail the significant amount of plagiarized material contained in a funded proposal that you submitted to NSF. As a result of this finding, the OIG reviewed three other proposals you prepared and discovered that you copied text and figures from numerous sources without attribution in all four proposals.

The University referred this matter to an ad hoc committee, which conducted an investigation and concluded that you recklessly committed plagiarism and that it was a significant departure from accepted practices.

Research Misconduct

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 acknowledge that you copied text without attribution but maintain that the plagiarized text did not pertain to the proposed work or novelty of ideas. You claim that your actions resulted from a lack of training and understanding about how to attribute appropriately material from other sources. I do not find these claims persuasive, and your admission permits me to conclude that your actions meet the applicable definition of plagiarism, as set forth in NSF's regulations.

Pursuant to NSF's regulations, NSF must also determine whether to make a *finding* of research misconduct based on a preponderance of the evidence. 45 CFR § 689.2(c). Based on information in both the OIG Investigative Report and the University investigation, it is clear that you were responsible for the plagiarism and acted recklessly. You maintain that the inclusion of copied text was due to your lack of knowledge of proper procedures, rather than an intent to deceive. However, you did not plagiarize in your published works, but you repeatedly plagiarized text in proposals submitted to NSF, which indicates a continuing pattern of behavior, as documented in the attached Investigative Report prepared by NSF's Office of Inspector General ("OIG").

While the plagiarized text did not have an impact on the published research record, the quantity of plagiarized passages was significant and found in four of your NSF proposals. Your plagiarism is rendered more serious by the fact that you have served as a reviewer for a journal and as a panelist for NSF. These facts permit me to conclude that, based on a preponderance of evidence, the plagiarism was committed recklessly and constitutes 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 review 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 sanctions to impose for research misconduct, I have considered the seriousness of the misconduct, which indicates that you recklessly committed plagiarism by preparing and submitting multiple proposals containing copied text, one of which received NSF funding. I have also considered other relevant circumstances. See 45 CFR § 689.3(b).

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

- You are required to complete a comprehensive responsible conduct of research training course 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 a period of two years from the date that the research misconduct determination becomes final, I am requiring that you submit contemporaneous certifications that any proposals or reports you submit to NSF do not contain plagiarized, falsified, or fabricated material.
- For a period of two years from the date that the research misconduct determination becomes final, you are required to submit contemporaneous assurances by a responsible official of your employer that any proposals or reports you submit to NSF do not contain plagiarized, falsified, or fabricated material.
- For a period of two years from the date that the research misconduct determination becomes final, you are prohibited from participating as a peer reviewer, advisor, or consultant for NSF.

All certifications, assurances, and 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 NSF. 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 Assistant General Counsel, at (703) 292-

Sincerely,

Richard O. Buckius Chief Operating Officer

Kiehal O. Bash

Enclosures: Investigative Report 45 CFR Part 689