



NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL
OFFICE OF INVESTIGATIONS

CLOSEOUT MEMORANDUM

Case Number: A12080057

Page 1 of 1

Our investigation determined that the Subject¹ knowingly plagiarized in proposals submitted to NSF. NSF made a finding of research misconduct; sent a letter of reprimand to the Subject; required the Subject to submit certifications to the Assistant Inspector General for Investigations (AIGI), NSF OIG for three years; required the Subject's employer to submit assurances to the AIGI of NSF OIG for three years; and required the Subject to provide certification to the AIGI that he has completed a course on the responsible conduct of research.

This memo, the attached Report of Investigation, and the letter from NSF with a finding of research misconduct constitute the case closeout. Accordingly, this case is closed.

¹ [REDACTED]

NATIONAL SCIENCE FOUNDATION

4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230



OFFICE OF THE
DEPUTY DIRECTOR

AUG 18 2014

CERTIFIED MAIL -RETURN RECEIPT REQUESTED



Re: Notice of Research Misconduct Determination

Dear [REDACTED]:

As a professor in the [REDACTED] ("University"), you served as a Principal Investigator ("PI") on a National Science Foundation ("NSF") CAREER proposal that contained 76 unique lines of copied text and two figures plagiarized from eight sources. This plagiarism is documented in the attached Investigative Report prepared by NSF's Office of Inspector General ("OIG").

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)

The OIG Investigative Report describes in detail the plagiarized material that was found in an NSF CAREER proposal that was funded by NSF. In addition, the University concluded as part of its own investigation that the NSF CAREER proposal contained plagiarized material. This information 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, the Foundation must also determine whether to make a *finding* of research misconduct based on a preponderance of the evidence, 45 CFR § 689.2(c). Based on information in both the OIG Investigative Report and the University investigation, it is clear that the plagiarized material appeared not only in the NSF CAREER proposal, but also in two proposals submitted to the Department of Defense up to 17 months later. This information undermines the credibility of your assertion that the plagiarism was the unintentional consequence of being in a rush to put together the NSF CAREER proposal. After reviewing the OIG Investigative Report and the University investigation, NSF has determined that, based on a preponderance of the evidence, the 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 institutional representative certify as to the accuracy of reports or certifications of compliance with particular requirements, 45 CFR § 689.3(a)(1). Group II actions include award suspension or restrictions on designated activities or expenditures; requiring special reviews of requests for funding; and requiring correction to the research record, 45 CFR § 689.3(a)(2). Group III actions include suspension or termination of awards; prohibitions on participation as NSF reviewers, advisors or consultants; and debarment or suspension from participation in NSF programs, 45 CFR § 689.3(a)(3).

In determining the severity of the sanction to impose for research misconduct, I have considered the seriousness of the misconduct; my determination that it was committed knowingly; the fact that the misconduct had an impact on the research record in that NSF funded the CAREER proposal that contained the plagiarized text; and the fact that there was a pattern of misconduct in which the plagiarism occurred in at least two other proposals submitted to other federal funding agencies. 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, 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 three years, you are required to submit certifications that any proposals or reports you submit to NSF do not contain plagiarized, falsified, or fabricated material.
- For a period of three years, you are required to submit 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.

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 Foundation. 45 CFR § 689.10(a). Any appeal should be addressed to the Director at the National Science Foundation, 4201 Wilson Boulevard, Arlington, Virginia 22230. If we do not receive your appeal within the 30-day period, the decision on the finding of research misconduct will become final. For your information, we are attaching a copy of the applicable regulations.

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

Sincerely,



Cora B. Marrett
Deputy Director

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

NATIONAL SCIENCE FOUNDATION
4201 Wilson Boulevard
Arlington, Virginia 22230



AUG 17 2014

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

[REDACTED]

Re: Notice of Research Misconduct Determination

Dear [REDACTED]

It has come to our attention that there was a clerical error regarding the date stamp on the recent Notice of Research Misconduct Determination letter mailed to you. The letter was date stamped with an incorrect date of *August 18, 2014*. The letter was mailed on **August 4, 2014** and that is the date which should have been reflected on the date stamp. We apologize for the error and will reflect the corrected date in our records.

Sincerely,

[REDACTED]

[REDACTED]

Assistant General Counsel

National Science Foundation Office of Inspector General



Report of Investigation
Case Number A12080057
March 07, 2014

**This 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 report of investigation.

Executive Summary

OIG's inquiry established that:

- copied text appeared in the Subject's funded NSF CAREER proposal.

University's investigation concluded that:

- the Subject plagiarized text into his NSF proposal;
- the Subject's plagiarism was intentional, and a significant departure from the standards of the research community; and,
- the Subject's plagiarism constituted research misconduct.

OIG's investigation established that:

- plagiarized text appeared in the Subject's NSF CAREER proposal;
- the Subject's proposal presented data from others as if it were the Subject's own; and,
- the Subject's plagiarism recurred in proposals submitted to other federal agencies.

OIG concludes that:

- **Act:** The Subject plagiarized approximately 76 lines of text and several figures into a funded NSF CAREER proposal.
- **Intent:** The Subject acted intentionally.
- **Standard of Proof:** A preponderance of the evidence supports the conclusion that the Subject's acts were a significant departure from the standards of the research community, and therefore constitute research misconduct.
- **Pattern:** The Subject's actions show a pattern of plagiarism in submitted proposals.

OIG recommends that NSF:

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

For a period of 3 years as of the date of NSF's finding:

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

OIG's Inquiry

We assessed an allegation that the Subject's¹ funded NSF CAREER proposal² contained copied text. Our review revealed that approximately 76 unique lines of text, and data in several figures, were apparently copied from 8 different sources. We wrote the Subject to invite his explanation.³

The Subject responded that he took "full responsibility for these mistakes,"⁴ but was shocked by the amount of "identical and/or substantially similar text."⁵ He admitted that the "contents were copied identically without any proper citation."⁶ He stated that he had a postdoc "prepare a significant portion of the proposal."⁷ The Subject admitted that Figures 3, 4, and 5 were copied from the indicated sources, and that the source of these figures was not cited.⁸ The Subject pointed to other cited sources for Figures in his proposal as evidence that the lack of citation for Figures 3, 4, and 5 was unintentional, and asserted that preliminary data is not required for CAREER proposals. Finally, the Subject noted that an NSF proposal "is not a publication" but "merely a material that a limited number of reviewers could access."⁹

The Subject's response did not address copied text in portions of the proposal presumably composed by the PI, such as plans for student mentoring. The Subject's explanation for the copied data was unconvincing because NSF instructions do allow appropriate inclusion of preliminary data.¹⁰ Finally, the NSF proposal preparation guide is clear that proposals should be prepared according to the highest standards of scholarship. Because the Subject's response did not dispel the allegation, we referred an investigation to the university.¹¹

University Investigation

The Dean of the Subject's School convened an investigation committee (IC) consisting of three faculty members.¹² We received a copy of the IC report and associated documents.¹³ The IC imaged the computers of the Subject and his postdoctoral research associate, and sequestered email correspondence. The IC interviewed the Subject and his postdoc,¹⁴ and provided

1 [REDACTED]

2 [REDACTED]

³ Our inquiry letter to the Subject, with the annotated proposal, is at Tab 1. His response is at Tab 2.

⁴ Response letter, page 2 (Tab 2).

⁵ Response letter, page 1 (Tab 2).

⁶ Response letter, page 1 (Tab 2).

⁷ Response letter, page 1 (Tab 2).

⁸ Response letter, page 1 (Tab 2).

⁹ Response letter, page 2 (Tab 2).

¹⁰ Proposal preparation instructions state that "The Project Description should be developed in consultation with the department head or equivalent organizational official and should include: a description of the proposed research project, including preliminary supporting data where appropriate, specific objectives, methods and procedures to be used, and expected significance of the results."

¹¹ The referral of investigation letter is at Tab 3.

¹² University policy is included at Tab 4.

¹³ The IC report, the Dean's cover letter, and associated documents are included at Tab 5.

¹⁴ [REDACTED]

transcripts of the interviews. The IC report stated that since the “grant (sic) did not contain original data and there was no allegation of falsification or fabrication of experimental results ... we did not sequester any laboratory notebooks.”¹⁵ The IC completed “an exhaustive search of all computer files and email correspondence.”¹⁶

The IC interviewed the Subject’s postdoc¹⁷ who admitted that he provided material on chemical synthesis and characterization for the NSF proposal.¹⁸ The postdoc confirmed that Figure 3 on page 4 of the proposal, and Figure 4 on page 5 of the proposal, were taken from the work of others published in the literature.¹⁹ Additionally, the postdoc stated that other sections of text he provided were taken from a report about which he could remember no specific information.²⁰ The postdoc stated that his contribution to the proposal did not include sections dealing with approach, rationale, or preliminary data.²¹ Although the postdoc revealed to the IC that he worked with the Subject in the preparation of other grant proposals,²² the IC did not examine any other proposals for potential plagiarism.

The IC report stated: “...the Committee concluded on the basis of testimonies in a formal setting that [the postdoc] is naïve and lacking in education about scientific integrity, but that we determined that he was forthcoming and honest, within the limits of his language challenges. The Committee concluded that [the postdoc’s] involvement in the preparation of the [NSF proposal] did not indicate any scientific misconduct on his part and that allegations of plagiarism should not be brought to bear on him. ... However, the Committee will ask that [the postdoc] and his laboratory colleagues be required to undergo training in the responsible conduct of research.”²³ The IC did not establish whether the postdoc had already participated in the responsible conduct of research training mandated as part of university policy.²⁴

During his interview with the IC, the Subject asserted that he was rushed to submit the proposal to NSF, did not have time to edit the material that he admittedly copied from some of the indicated sources.²⁵ He stated that he viewed the NSF CAREER proposal as a document with limited access, and he therefore “didn’t pay attention on the citation that much.”²⁶ He pointed out that in his later publications, “... we cited those old people, and we gave a credit to those people who I missed to cite in the proposal.”²⁷ When asked by the IC about differentiating his own words from those of others, the Subject responded: “Most of the copied part is introduction and method, didn’t really contribute any of the critical idea part.”²⁸ He stated that

¹⁵ IC report, page 3 (Tab 5).

¹⁶ IC report, page 3 (Tab 5).

¹⁷ The postdoc interview began with a statement by the IC that he is a witness in the investigation.

¹⁸ Transcript, page 4, lines 10-11 (Attachment E, Tab 5).

¹⁹ Transcript, page 4, lines 13-22 (Attachment E, Tab 5). As noted, this statement by the postdoc contrasts with the conclusions of the IC that these figures merely resembled the data in the sources.

²⁰ Transcript, page 7, lines 19-25 (Attachment E, Tab 5).

²¹ Transcript, page 8, lines 4-8 (Attachment E, Tab 5).

²² Transcript, page 21, lines 12-25 (Attachment E, Tab 5).

²³ IC report, pages 5-6, Tab 5).

²⁴ University policy on this matter is attached at Tab 6.

²⁵ Transcript, page 4, lines 13-17 (Attachment D, Tab 5).

²⁶ Transcript, page 5, lines 22-23 (Attachment D, Tab 5).

²⁷ Transcript, page 4, line 25, and page 5, lines 1-2 (Tab 5).

²⁸ Transcript, page 30, lines 9-12 (Attachment D, Tab 5).

his practice in proposal composition was to “sometimes . . . just copy from what other people wrote, not a manuscript or publications, an existing document from my postdoctoral or graduate students, and I edit.”²⁹ The Subject stated that he was trained to memorize sentences from scientific papers, and that he trains his students and postdocs the same way.³⁰ The Subject stated “So I have been reading a lot of NIH proposals as a – you know, study section and NSF proposals. Many of them missed the citation, and they just copied some figure from Google. Should I do the same thing? I’m not sure it’s their picture or they copied it from somewhere.”³¹

The Subject admitted that he asked his postdoc to provide certain sections of the proposal.³² He also stated that he copied from a report that an undergraduate student prepared for a class taught by the Subject.³³ The Subject admitted that he took material related to his educational activities from other researchers³⁴ who had received an NSF CAREER award.³⁵ Specifically with respect to Figure 5 on page 6 of the proposal, the Subject stated that the descriptions and the data could be found in multiple papers talking about the same method.³⁶ However, he also stated that “for the [REDACTED] picture, you can type in Google, and you can find a similar thing, 100 different similar kind of versions of the same thing. What I was – written description, yeah I admit that: those are copied without being significantly edited. That was my fault.”³⁷ Asked about other specific data³⁸ that appears in his proposal, the Subject stated “they think I copied it from somewhere, but I had the data. So that means I have $n = 2$ data.”³⁹ The Subject stated to the IC that text copied into his NSF proposal reappeared in later proposals submitted to other funding agencies⁴⁰ The Subject specifically described his subsequent [REDACTED] proposals in his interview with the IC: “Honestly, there was a full copy of the proposal, recycle of the proposal. So, it’s not really a copy; it was a recycle of the whole proposal.”⁴¹

The IC examined the annotated NSF CAREER proposal and alleged sources and concluded that “the evidence shows unequivocally that materials . . . [in the Subject’s grant

²⁹ Transcript, page 4 (Attachment D, Tab 5).

³⁰ Transcript, page 10 (Attachment D, Tab 5).

³¹ Transcript, page 29 (Attachment D, Tab 5).

³² Transcript, page 8, lines 12-25 (Attachment D, Tab 5).

³³ Transcript, page 11, lines 16-18 (Attachment D, Tab 5). The IC did not follow up on this issue.

³⁴ The Subject did not identify these individuals.

³⁵ Transcript, page 37, lines 11-16 and page 38, lines 17-23 (Attachment D, Tab 5).

³⁶ Transcript, page 32, lines 17-24 and lines 1-12, and page 34, lines 8-13 (Attachment D, Tab 5). The Subject did not provide examples to the IC, nor did the IC ask for any.

³⁷ Transcript, page 34, lines 8-13 (Attachment D, Tab 5).

³⁸ Figure 4 in the NSF CAREER proposal (Transcript, page 34, line 25, (Attachment D, Tab 5)).

³⁹ The IC did not follow up on this issue.

⁴⁰ Our inquiry letter to the Subject (Tab 2) asked “Is there any additional text in your proposal (this or your other proposals) that was copied from another source but is not properly distinguished and attributed?” The Subject responded to the inquiry letter: “Considering the nature of CAREER proposals, this proposal was only one I had to rush to submit without being fully prepared with structured preliminary results. I have looked through all the proposals that I wrote and involved since 2008 but I have not found any part that is identically copied without proper citation. Actually, I need more time to finish this job and feel like it takes forever.” (Response letter, page 3 (Tab 3)).

⁴¹ Transcript, page 40, lines 24-25, and 1-2 (Attachment D, Tab 5). The Subject is referring to the fact that copied text and figures which appear in his NSF CAREER proposal also appear in the [REDACTED] proposals.

(sic)]... were copied from eight sources without appropriate attribution.”⁴² The IC examined the computer files and emails for “evidence of possible collusion;”⁴³ the IC found “no explanation for the duplicated passages or reason to believe that simple error was the cause.”⁴⁴ The IC stated that it used Google to search for additional instances of plagiarism in the NSF proposal.⁴⁵

The IC concluded that the Subject’s plagiarism constituted research misconduct and that this act was a departure from accepted practices of the relevant research community⁴⁶ and that the plagiarism was committed intentionally.⁴⁷ The IC concluded that Figures 3, 4, and 5 in the proposal were not copied from the indicated sources, and were not intended to be attributed to the Subject’s research. The IC reached this conclusion despite the specific admission of the Subject in his response to our inquiry letter, and in his interview with the IC,⁴⁸ that these figures were copied from these sources. Although the IC noted that parts of the NSF proposal reappeared in a proposal submitted to the [REDACTED] by the Subject,⁴⁹ the IC did not consider whether a pattern of behavior by the Subject was evident. Finally, the IC concluded that “there was no original data” in the proposal and to the IC’s knowledge “no publications have emerged that have anything to do with the questionable materials.”⁵⁰ The IC concluded that there was no significant impact on the research record or the public welfare.⁵¹ The IC did not, however, examine any of the Subject’s publications or research reports.

The IC recommended that the Subject receive a letter of reprimand, be placed on probation for two years, complete training in the responsible conduct of research, and be placed under the supervision of a senior faculty member to ensure that the Subject’s “future submissions are free of violations of accepted standards of scientific conduct.”⁵² The Dean required that members of the Subject’s research team complete training in the responsible conduct of research.⁵³ The Dean imposed the following sanctions on the Subject: 1) a letter of reprimand and two years of probation; 2) requirement for training in the responsible conduct of research; 3) assistance and counsel of a senior faculty member to ensure that future grant applications and scientific publications are consistent with accepted standards of scientific conduct; 4) a series of meetings with the senior faculty member to document progress in understanding and implementing the standards of scientific conduct; 5) a twice-yearly report to the Dean of submitted proposals or research manuscripts, with a certification that accepted standards of scientific conduct have been followed, and; 6) a review at the end of the probationary period to determine if it should be continued.⁵⁴

⁴² IC report, page 4 (Tab 5).

⁴³ IC report, page 4 (Tab 5).

⁴⁴ IC report, page 4 (Tab 5).

⁴⁵ IC report, page 4 (Tab 5).

⁴⁶ IC report, page 6 (Tab 5).

⁴⁷ IC report, page 7 (Tab 5).

⁴⁸ Transcript, lines 11-12, page 32 (Attachment D, Tab 5).

⁴⁹ IC report, page 5 (Tab 5).

⁵⁰ IC report, page 7 (Tab 5).

⁵¹ IC report, page 7 (Tab 5).

⁵² IC report, page 8 (Tab 5).

⁵³ Cover letter from [REDACTED] dated August 27, 2013 (Tab 5). No other information was provided.

⁵⁴ Cover letter from [REDACTED], pages 2-3 (Tab 5).

OIG's Investigation

Pursuant to the NSF research misconduct regulation, we assessed whether the university's investigation report was fundamentally accurate and complete, and whether the university followed reasonable procedures. The IC noted that some of the same text copied into the NSF CAREER proposal appeared in the proposals subsequently submitted to the [REDACTED] but did not assess that recurrence in light of a potential pattern of plagiarism by the Subject, or as part of an evaluation of the explanation provided by the Subject for the copied text in the NSF CAREER proposal. Therefore, we resumed our investigation.

We contacted the Subject to invite his comments on the university report and actions. The Subject responded that he had no comments. We contacted the university to acquire a copy of the two [REDACTED] proposals that the IC report indicated contained copied material overlapping with the NSF proposal. The three proposals of interest are listed in the table below.

Proposal to	Title	Submitted date	Awarded date	Amount
[REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED]	July 21, 2010	[REDACTED]	[REDACTED] with award letter of [REDACTED] and email notices in December 2010
[REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED]	December 10, 2010	Declined	
[REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED]	December 21, 2011	Declined	

Both of the [REDACTED] proposals contain text and data in common with the NSF proposal, but the overlap is far more extensive in the longer [REDACTED] proposal.⁵⁵ The Subject's explanation in response to our inquiry letter, and his subsequent explanation to the university IC, was that he did not have to time to edit text and data in his NSF CAREER proposal, with the result that citations were incomplete or missing. However, the same copied text and data appears in the [REDACTED] proposal, submitted 17 months after the NSF proposal was submitted, undermining the credibility of the explanation. Additionally, examination of the [REDACTED] proposal shows that it seeks funds for research already funded by NSF. The second specific objective in both proposals is the creation of a library of [REDACTED]. The composition of the [REDACTED] and the proposed experiments are exactly the same in both proposals, despite a claim in the text of the [REDACTED] proposal that the research proposed is distinct from that supported by the NSF CAREER award. The [REDACTED] proposal was declined for funding.

⁵⁵ The cross-annotated NSF CAREER and the [REDACTED] proposals are included at Tab 7, along with the [REDACTED] proposal. [REDACTED]

The NSF ejacket indicates that the NSF Program Officer contacted the Subject on December 10, 2010 for an updated list of current and pending support before the NSF CAREER award was made. The Subject provided a list on December 20, 2010 that did not contain an entry for the [REDACTED] proposal, submitted earlier that month.⁵⁶ Conversely, the [REDACTED] proposal does not mention the pending NSF CAREER proposal submitted four months earlier, although it lists several other pending awards. The [REDACTED] proposal contains a list of the Subject's current and pending support, and the funded NSF CAREER award is included in that list.

In addition to the copied text considered by the IC, we carefully examined the provenance of Figure 4 and Figure 5 in the Subject's NSF CAREER proposal, both of which are identified as experimental data relevant to the research proposed. Figure 4 in the proposal appears to be redrawn from data in Source 8 (appearing as Figure 5 there). This figure in the NSF CAREER proposal reappears exactly in the [REDACTED] proposal, but no reference list was included with the copy of the proposal provided to us by the university. We conclude that Figure 4 in the NSF CAREER proposal is redrawn from data reported by others (as in Source 8), and appears in the Subject's NSF proposal without appropriate credit, and was also copied into the [REDACTED] proposal.

Figure 5 in the NSF CAREER proposal appears to be redrawn from data in Source 1 (appearing as Figure 4 there). Accompanying descriptive text is also copied. Figure 5 is specifically linked in the NSF CAREER proposal to the "PI's previous study."⁵⁷ A citation to Source 1 does not appear in the NSF-CAREER proposal's reference list. Figure 5 reappears in the [REDACTED] and the [REDACTED] proposal. In both instances, the figure is linked explicitly in the text to the PI's previous study. A citation for Source 1 as a reference does not appear in the reference list for the [REDACTED] proposal. We conclude that Figure 5 in the NSF CAREER proposal is redrawn from data reported by others, appears in the Subject's NSF proposal without appropriate credit, and was also copied into the [REDACTED] and [REDACTED] proposals.

OIG Assessment

The Subject admitted to OIG and to the IC that unattributed text and multiple figures were copied into his NSF CAREER proposal. We note that some of the text and all the figures were copied into the Research Plan section of the proposal. As noted above, the same copied text appears in two other proposals submitted to [REDACTED] and [REDACTED]. The reoccurrence of this copied text undermines the Subject's assertion that he did not have time to edit the text for the NSF CAREER proposal. Figures 3 and 4 are copied from the identified sources and in the case of Figure 4, the sentence describing the figure contains a reference to the source although the figure itself contains no reference. Figure 5, however, contains no reference nor does the text

⁵⁶ Emails and attachments are collected at Tab 8. The record in ejacket shows that the NSF Program Officer made the initial request for updated current and pending support, and other documents, on December 10, 2010. The Subject first replied on December 20, 2010. The Program Officer asked for revisions in an email sent to the Subject on January 14, 2011, and the Subject replied with amended documents that same day.

⁵⁷ NSF CAREER Proposal, page 5 (Tab 1).

describing the figure contain any reference. The textual description of that figure is written in a manner that leads the reader to interpret that the figure represents the PI's preliminary or previous research. Misrepresentation of the data's provenance is falsification because it does not accurately represent the research record. In this specific case, the subject presented the data as his preliminary results when in actuality the data was compiled by other researchers.

Finally, the IC concluded that the Subject's research misconduct had no significant impact on the scientific record, failing to consider that the NSF proposal in which plagiarism occurred was funded by NSF, that the Subject repeated his misconduct in [REDACTED] proposals, and that the Subject sought duplicate funding for research already supported by the NSF CAREER award.

In his adjudication, the Dean put in place a requirement that the Subject receive the "assistance and counsel of a senior faculty member."⁵⁸ We note that the supplementary documents submitted with the Subject's NSF-CAREER proposal state that a mentoring committee composed of three faculty had been assigned to ensure [the Subject's] career development.

Regarding the actions of the postdoc, we do not concur with the IC's conclusion that the postdoc's lack of education in scientific integrity is a mitigating factor in determining whether he committed plagiarism. However, given the totality of circumstances, we cannot conclude by a preponderance of the evidence that the postdoc committed research misconduct.

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

Acts

The Subject copied approximately 76 lines of text, and two figures, from eight sources into his NSF proposal. None of the copied text was differentiated with the use of quotation marks, and citations and references were often missing. The Subject presented data from others in his NSF proposal as if it were the Subject's work. We concur with the university's conclusion that by failing to provide attribution to words written by others, the Subject committed plagiarism, and that his actions were a significant departure from accepted standards of the research community. In presenting one figure developed by others, as if it were his own, the Subject committed an act of falsification.

Intent

The IC characterized the Subject's actions as intentional.⁶⁰ This level of intent is sufficient for a finding of research misconduct. Similarly, we conclude that the Subject's actions

⁵⁸ Cover letter from [REDACTED], pages 2-3 (Tab 5).

⁵⁹ 45 C.F.R. §689.2(c).

⁶⁰ IC report, page 7 (Tab 5).

leading to the plagiarism and falsification in the NSF proposal and [REDACTED] proposals were intentional.

Standard of Proof

We concur with the IC's conclusion that the preponderance of the evidence proves that the Subject committed plagiarism. Because these actions represent a significant departure from accepted practices, we conclude that the Subject's plagiarism and falsification constitute 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.⁶¹

Seriousness

The Subject plagiarized into a funded NSF CAREER proposal. His plagiarism was not limited to the background sections, as he suggested. Instead, it appeared in the supporting ideas for the proposed research, in what appeared to the reviewers and program officer to be experimental results, in the methods section, and in the description of his individual educational plans characteristic to CAREER proposals. However, the fact that the proposal was funded elevates the seriousness of the Subject's misconduct.

Pattern

The Subject plagiarized text and falsified data in his NSF CAREER proposal. Although he claimed that this occurrence was due to his lack of time to properly edit the proposal, the plagiarism and falsification recurred by his own admission in at least two other proposals submitted to federal funding agencies, establishing a pattern of behavior. While the Subject was evasive in his response to our inquiry letter about plagiarism in other proposals, he admitted to the IC that he reused material in multiple proposals.

Impact on the Research Record

The Subject's plagiarism is evident in proposals submitted to two different federal agencies.

⁶¹ 45 C.F.R. § 689.3(b).

Other Relevant Circumstances

The Subject's actions also raise questions about his perspective on the solicitation of research funding. He admits to recycling parts of the funded NSF CAREER proposal to solicit additional research funding. In addition, the Subject's inaccurate current and pending support information was part of a pattern that extends to each of the three proposals we examined, and is evident in his communication with the NSF Program Officer.

We provided a draft copy of this report to the Subject. The Subject responded that he had no comments on the report.

Recommendations

We recommend that NSF:

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

For a period of 3 years as of the date of NSF's finding:

- require for each document (proposal, report, etc.) to which the Subject contributes for submission to NSF (directly or through her institution),
 - the Subject submit a certification to the AIGI that the document does not contain plagiarism, falsification, or fabrication,⁶⁴ and
 - the Subject submit assurances from a responsible official of her employer to the AIGI that the document does not contain plagiarism, falsification, or fabrication.⁶⁵
- bar the Subject from participating as a peer reviewer, advisor, or consultant for NSF.⁶⁶

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

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

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

⁶⁵ A Group I action 45 C.F.R. 689.3(a)(1)(iii).

⁶⁶ A Group III action 45 C.F.R. 689.3(a)(3)(ii).