

#### NATIONAL SCIENCE FOUNDATION OFFICE OF INSPECTOR GENERAL OFFICE OF INVESTIGATIONS

# **CLOSEOUT MEMORANDUM**

Case Number: A10040028 Page 1 of 1

Our office conducted an investigation into an allegation of plagiarism, in a PI's proposal, that was subsequently funded under an award to a small business. The investigation substantiated the PI plagiarized text in the funded proposal as well as an unfunded proposal submitted by the PI.

Based on our investigative report, NSF made a finding of research misconduct and sent the PI a letter of reprimand. NSF required the PI to complete a course in the responsible conduct of research and submit certification assurances for his NSF proposals for a period of two years. NSF prohibited the PI from serving as an NSF reviewer, advisor, or consultant for one year.

The report of investigation and the Deputy Director's memo are attached. Accordingly, this investigation is closed and no further action will be taken.

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#### N ONAL SCIENCE FOUNDATION

4201 WILSON BOULEVARD ARLINGTON, VIRGINIA 22230



JAN 1 0 2013

## VIA CERTIFIED MAIL/RETURN RECEIPT REQUESTED



Re: Notice of Research Misconduct Determination

Dear \_\_\_\_\_

In 20 and 20 you served as a Principal Investigator ("PI") on two Small Business Innovation Research Phase I proposals submitted for funding to the National Science Foundation ("NSF") entitled,

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 152 unique lines of text, nine embedded references and two tables copied from 18 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;
- (2) By January 15, 2014, you must complete a responsible conduct of research training program, and provide proof of its completion to the OIG; and
- (3) Until January 15, 2014, you are prohibited from serving as a reviewer, advisor, or consultant for NSF.

The certifications, assurances, and written proof of attendance 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 Eric S. Gold, Assistant General Counsel, at (703) 292-8060.

Sincerely,

Cora R Marrett

Cora B. Marrett Deputy Director

#### Enclosures

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

# **Executive Summary**

Allegation:

Plagiarism of text from 10 Sources into a NSF awarded proposal to a small business.

**OIG** Inquiry:

We identified an awarded proposal (Award) with 92 lines and 3 embedded references allegedly plagiarized from 10 Sources. We contacted the Subject, but his explanation did not resolve the alleged plagiarism. Because the Subject's employer is a small business, we initiated our own investigation.

OIG's Investigation:

The Subject admitted he failed to properly cite some sources in the Award but disputed some of the allegations of plagiarism. He claimed some of the sources had been referenced. However, the Subject did not use quotation marks or any other method to distinguish between his own words and the words of others. We also reviewed a pending proposal from the Subject and found 60 additional lines of copied text, including 6 embedded references and 2 tables. Consequently, we found a total of 152 lines in the Award and Proposal that were not properly distinguished or cited.

**OIG's Assessment:** 

- The Act: Plagiarism of 152 unique lines and 9 embedded references from 18 Sources.
- **Significant Departure:** The Subject's actions are a significant departure from accepted practices of the research community.
- **Intent:** The Subject acted knowingly.
- **Pattern:** Additional plagiarism found in a recent proposal submitted to NSF.
- **Standard of Proof:** The preponderance of the evidence supports a finding of research misconduct.

# OIG Recommendation:

- Send the Subject a letter of reprimand notifying him that NSF has made a finding of research misconduct.
- Require the Subject to certify completion of the RCR training program and provide documentation of the program's contents within 1 year of NSF's finding.
- Require the Subject to submit certifications for 2 years.
- Bar the Subject from participating as a reviewer, advisor, or consultant for NSF for a period of 1 year.

## OIG's Inquiry and Investigation

We identified potential plagiarism in a funded NSF SBIR proposal<sup>1</sup> (Award), specifically, 92 lines and three embedded references<sup>2</sup> allegedly copied from 10 sources. We wrote<sup>3</sup> to the PI<sup>4</sup> (the Subject) seeking his explanation about the questioned text which appeared to be improperly cited and indistinguishable from his own original text.

In his response,<sup>5</sup> the Subject explained he cited most of the sources as references, but he had not cited Source A because the text was in the abstract where he believed citations are not normally used. Although he stated he cited several of the sources as references, he offered no explanations for failing to provide proper attribution for the copied text or for failing to distinguish the words of others from his own. He further claimed that text from Source A, I, and J consisted of generic statements that did not need to be cited.

The Subject's response did not dispel the allegation of plagiarism, so we initiated an investigation. Our review indicated, contrary to the Subject's assertion, citations can be used in the proposal abstract. More importantly, the material from Source A, which was used in the abstract, is repeated in the body of the proposal without proper reference or demarcation. Our review also indicated that text from Sources A I and J were not generic and should have been attributed appropriately to the original authors with the verbatim text either quoted or indented to indicate that the words were not his own. Although, Sources C, D, E, G and H were cited as references in the Award, the Subject again did not provide appropriate attribution to the copied text and any citations to those sources were not near the verbatim copied text.

The Subject correctly stated that Source F is identical to Reference 19. However, the citation for Reference 19 is not near the copied, verbatim text. Instead, the two citations near the verbatim text consist of embedded references taken from Reference 19.

The table below shows the copying by the Subject from Sources A-J: <sup>8</sup>

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<sup>&</sup>lt;sup>2</sup> An embedded reference is a citation to a reference appearing within the stretch of copied text. The placement and reference are identical in both the source and the proposal.

<sup>&</sup>lt;sup>3</sup> Tab 2 OIG inquiry letter to the Subject.

<sup>&</sup>lt;sup>5</sup> Tab 3, The Subject's response.

<sup>&</sup>lt;sup>6</sup> We did not refer this matter because the PI works for a small business which lacks the resources to conduct an independent investigation.

<sup>&</sup>lt;sup>7</sup> The copied text from Source F occurs on pages 4, 6, and 8. Reference 19 is not cited until page 14.

<sup>&</sup>lt;sup>8</sup> Tab 4, Copied Sources A-J.

Section	Source	Award
Background, potential applications	A (website)	7 lines
Background	B (proposal)	5.5 lines
Background	C (article)	3 lines <sup>9</sup>
Background	D (article)	1.5 lines
Background	E (technical report)	13 lines; 1 embedded reference
Research objectives, plan,		
methodology	F (article)	13 lines; 2 embedded references
Methodology	G (article)	26 lines
Methodology	H (article)	9 lines
potential applications	I (book)	8.5 lines
potential applications	J (website)	6 lines
Total(UNIQUE) Lines:		92 lines; 3 embedded references

As a part of our investigation, OIG reviewed another of the subject's proposals<sup>10</sup> and detected approximately 60 lines, 6 embedded and 2 tables copied from 8 sources (Sources K through S)<sup>11</sup>. The table below shows the material apparently copied and improperly cited from Sources K through S.

Section	Source	Proposal 2 (pending)
background	K (Article)	2 lines
background	L (Wikipedia Article)	8 lines; 1 table
background	M (Article)	2 lines
background & methodology	N (Army Report)	5 lines
background	O (Article)	25 lines; 3 embedded references; 1 table
background	P (Article)	6 lines; 3 embedded references
potential applications	Q (Conference Paper)	6 lines
potential applications	R (Website)	6 lines
Total (UNIQUE) Lines		60 lines; 6 embedded references; 2 tables

We note that the 2<sup>nd</sup> proposal was submitted *after* we contacted the Subject about the copied text in the Award.<sup>12</sup> The Subject has not been "conscientious in avoiding this type of mistake in [his] future proposals" as he claimed in his initial response.<sup>13</sup>

## **OIG Assessment**

A finding of misconduct requires that: (1) there be a significant departure from accepted practices of the relevant research community, (2) the research misconduct be committed

12 Our letter was sent ; the 2<sup>nd</sup> proposal was submitted

<sup>13</sup> Tab 3, p.2.

<sup>&</sup>lt;sup>9</sup> Source C is identical to Reference 3; thus the Subject properly cited, but did not properly differentiate this copied text from his own words.

<sup>&</sup>lt;sup>11</sup> Tab 7.

intentionally, or knowingly, or recklessly, and (3) the allegation be proven by a preponderance of the evidence. 14

#### The Act

In the first NSF proposal, the Subject failed to provide adequate attribution for text copied from 10 source documents and failed to distinguish the copied text from his own original words. The Subject admitted that he did not cite or wrongly cited Source A, B, and I. The Subject's explanations for the other copied text were without merit and did not dispel the allegations. The Subject failed to distinguish all of the copied text such that a reader would be able to distinguish between the Subject's words and the words he copied from others. Subsequently, the Subject submitted a second proposal with 60 lines of copied text including; 6 embedded references and 2 tables. In total, we found 152 lines undistinguished text with 9 embedded references from 18 Sources. The Subject's act meets NSF's definition of plagiarism<sup>16</sup> and constitutes a significant departure from the accepted practices of the relevant research community.

#### Intent

According to his Biographical Sketches, <sup>17</sup> the Subject received his doctorate degree in 1996. He worked as a research associate at an American University from 1998 to 2002, and published over 35 papers in peer-reviewed journals. As such, it is expected that the Subject would have a strong working knowledge of scholarly standards and proper citation. Furthermore, the act of copying and pasting materials from multiple sources into a single proposal is an inherently knowing act. Therefore, we conclude that the Subject knowingly copied material without providing proper citation.

#### Standard of Proof

The preponderance of the evidence supports that the Subject plagiarized 152 lines with 9 embedded references from 18 Sources in the Award. As is evidenced by the Subject's admission that he failed to properly cite sources, and our determination that he failed to demarcate or distinguish the copied text from his own words. We find that the Subject's actions are a significant departure from accepted practices of the relevant research community. We therefore conclude that the Subject's actions constitute research misconduct.

<sup>&</sup>lt;sup>14</sup> 45 C.F.R. 689.2(c).

<sup>&</sup>lt;sup>15</sup> Although he cited Source C he did not distinguish the copied text from his own words. Sources D and F are cited. but not in close proximity to the copied text.

<sup>&</sup>lt;sup>16</sup> " *Plagiarism* means the appropriation of another person's ideas, processes, results or words without giving appropriate credit." 45 C.F.R. § 689.1(a) (3).

Tab 5, from Section A. 9.5 of proposal and CV from prior proposal at Tab 8.

## **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.<sup>18</sup>

#### Seriousness

The Subject copied 152 lines of text from 18 different sources into the Award. In doing so, the Subject presented the copied and improperly cited text to NSF proposal reviewers as his own. NSF Grant Proposal Guide (GPG), states:

NSF expects strict adherence to the rules of proper scholarship and attribution. The responsibility for proper scholarship and attribution rests with the authors of a proposal; all parts of the proposal should be prepared with equal care for this concern. Authors other than the PI (or any co-PI) should be named and acknowledged. Serious failure to adhere to such standards can result in findings of research misconduct. NSF policies and rules and research misconduct are the AAG Chapter VII.C as well as in 45 CFR Part 689 (GPG Section I.D.3).

Based on the experience of this office, the Subject's actions are adequately serious to justify action by NSF.

#### Pattern of Behavior

The Subject's actions appear to be a part of a pattern of behavior. As evidenced by our review of a pending proposal detected an additional 60 lines, 6 embedded and 2 tables copied from nine sources. The second proposal was submitted after our investigation letter to him regarding the awarded proposal. The subject's actions represent a pattern of plagiarism.

<sup>&</sup>lt;sup>18</sup> 45 C.F.R. 689.3(b).

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

The Subject acknowledged he did not properly cite references and has begun to take corrective actions to ensure he does not commit similar mistakes in any future submissions. The Subject's response did not change our recommendations.<sup>19</sup>

## Recommendations

Based on the evidence, OIG recommends that NSF:

- Send the Subject a letter of reprimand notifying him that NSF has made a finding of research misconduct.<sup>20</sup>
- Require the Subject to certify to the Assistant Inspector General for Investigations (AIGI) his completion of the RCR training program and provide documentation of the program's content within 1 year of NSF's finding.<sup>21</sup>
- Require the Subject to submit a certification to the AIGI for each proposal, report, or other document he submits for 2 years from the finding that the contents are not plagiarized, falsified, or fabricated.<sup>22</sup>
- Bar the Subject from participating as a reviewer, advisor, or consultant for NSF for a period of 1 year.<sup>23</sup>

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<sup>&</sup>lt;sup>19</sup> Tab 9, Subject's response to draft report.

<sup>&</sup>lt;sup>20</sup> A Group I action 45 C.F.R. 689.3(a)(1)(i).

<sup>&</sup>lt;sup>21</sup> This action is not specified within the regulation (See 45 C.F.R. 689.3(a)). It is similar to Group I actions 45 C.F.R. 689.3(a)(1).

<sup>&</sup>lt;sup>22</sup> This action is not specified within the regulation (See 45 C.F.R. 689.3(a)). It is similar to 45 C.F.R. 689.3(a)(1)(iii).

<sup>&</sup>lt;sup>23</sup> A Group III action 45 C.F.R. 689.3(a)(3)(ii).