

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

#### CLOSEOUT MEMORANDUM

Case Number: A09060051 Page 1 of 1

We received an allegation that a proposal submitted to NSF contained plagiarized text. We concluded there was substance to the allegation and referred it to the PI's home institution. It substantiated the allegation and prohibited the PI from submitting proposals until she received training. After our investigation, we concluded the PI's actions were plagiarism that amounted to research misconduct. We referred our report of investigation to NSF, which agreed the PI committed research misconduct and took several actions. NSF's finding, OIG's report, and this document constitute the closeout for this case. This case is <u>closed</u> with no further action taken.

#### NATIONAL SCIENCE FOUNDATION

4201 WILSON BOULEVARD ARLINGTON, VIRGINIA 22230



JUL 0 7 2011

OFFICE OF THE DIRECTOR

#### CERTIFIED MAIL -- RETURN RECEIPT REQUESTED

Re: Notice of Research Misconduct Determination

Dear Dr.

In 2008-2009, you submitted three proposals to the National Science Foundation ("NSF") entitled, "

," and "

" As documented in the attached Investigative Report prepared by NSF's Office of Inspector General ("OIG"), these proposals contained plagiarized material.

#### Research Misconduct and 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 verbatim and paraphrased text copied from several 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 recklessly 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 recklessly. I have also considered the fact that your misconduct was part of a pattern of plagiarism, and had no substantive impact on the research record, as well as other relevant circumstances. 45 CFR § 689.3(b).

After assessing the relevant facts and circumstances of this case, I am taking the following actions against you:

- (1) Until July 1, 2013, 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) Until July 1, 2013, you must obtain, and provide to the OIG, assurances from a responsible official of your employer that any proposal or report you submit to NSF as a PI or co-PI does not contain plagiarized, falsified, or fabricated material; and

(3) Prior to submitting additional proposals to NSF, but no later than July 1, 2012, you must take a course on responsible research practices with emphasis on proper citation and attribution practices. You must provide certification to the OIG of your attendance at such a course.

The certifications and assurances 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 Assistant General Counsel, at (703) 292-8060.

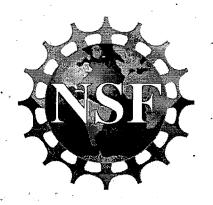
Sincerely,

Wanda Ward Senior Advisor to the Director

Enclosures:

Investigative Report 45 C.F.R. Part 689

## National Science Foundation Office of Inspector General



# Confidential Report of Investigation Case Number A-09060051 1 August 2011

### 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**

An NSF proposal contained approximately 106 lines of copied text without proper citation from 4 source documents. The Subject's explanation did not dispel the allegation. We identified an additional 74 lines of copied text without proper citation from two source documents in two other NSF proposals. We referred the matter to the Subject's home institution for investigation.

#### University Investigation

The University concluded that the Subject committed research misconduct when she recklessly plagiarized. It took no additional actions.

#### **OIG** Assessment

We concurred with the University that the Subject committed research misconduct, concluding:

<u>The Act</u>: The Subject plagiarized approximately 180 lines of text from 6 source documents into three NSF proposals.

<u>Intent</u>: The Subject acted recklessly.

<u>Standard of Proof</u>: A preponderance of the evidence supported our finding that the Subject recklessly plagiarized the text.

<u>Significant Departure</u>: The Subject's copying of text represents a significant departure from accepted practices in the research community.

<u>Pattern</u>: The subject's actions of copying text into 3 proposals exhibit a pattern of plagiarism.

#### **OIG**

#### Recommendations

Send a letter of reprimand to the Subject informing her that NSF has made a finding of research misconduct.

Require the Subject to take a course on responsible research practices with emphasis on proper citation and attribution practices.

For the next 2 years, require the Subject to provide certification with every submission to NSF that the submitted work is either entirely her own writing or is properly cited.

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For the next 2 years, require the Subject to ensure her employer submits assurances that the Subject's submitted work is either entirely the Subject's own writing or is properly cited.

#### **OIG's Inquiry**

We reviewed an allegation that an NSF proposal (Proposal 1) (Tab 1), which lists a PI (Subject) and two Co-PIs, contained plagiarized material. Our review identified approximately 106 lines of text copied from 4 source documents (Tab 2). The proposal's authors failed to provide references to three of the source documents, and although one source document was referenced, the reference was not in conjunction with the copied text. None of the copied text was offset or distinguished in such a way as to enable a reader to differentiate the authors' own text and citations from the copied text and citations.

We wrote to the PI and Co-PIs regarding the copied text (Tab 3), and the PI responded (Tab 4):

I erroneously was of the opinion that the proposal was to be 25 not 15 pages long...[and] in trying to cut down the write-up from 25 pages to the required 15 pages I inadvertently cut out statements collated from various sources as well as sources whose statements I had referenced.<sup>3</sup>

The PI said she had not submitted any other proposals containing material copied or not properly distinguished.<sup>4</sup> With regard to the contributions of her Co-PIs, the PI stated:

I wish to reiterate that I developed and wrote the proposal ... alone, without any written contribution from [the Co-PIs]...I am therefore humbly requesting that they be dropped from the above investigation.<sup>5,6</sup>

In our analysis of the Subject's response, we looked at the Subject's past submission of proposals to NSF to see if there was any reason the Subject should believe the proposal limit was 25, rather than 15, pages. We found four prior proposals involving the Subject submitted to NSF (the Subject was Co-PI on two and PI on two): Proposal 2,<sup>7</sup> Proposal 3,<sup>8</sup> Proposal 4,<sup>9</sup> and Proposal 5.<sup>10</sup> None of these proposals approached 25 pages in length (the longest was 16 pages), so there was no obvious reason for the Subject to think the page limit was as she described it. Consequently, we concluded the Subject's explanation was inadequate to obviate the allegation.

<sup>&</sup>lt;sup>1</sup> [redacted] It was submitted by [redacted] (the University) and lists [redacted] (the Subject) as the PI, with [redacted] as the Co-PIs. The proposal was declined.

<sup>&</sup>lt;sup>2</sup> The four source documents are three publications (Source Documents A, C, and D) and a draft white paper (Source Document B).

<sup>&</sup>lt;sup>3</sup> Tab 4, p. 1.

<sup>&</sup>lt;sup>4</sup> Tab 4, p. 2.

<sup>&</sup>lt;sup>5</sup> Tab 4, p. 3.

<sup>&</sup>lt;sup>6</sup> The two Co-PIs both confirmed the PI's statement that they did not provide any written contribution to the proposal. Accordingly, the Co-PIs were excluded from our Inquiry, and we considered the PI to be the Subject.

<sup>&</sup>lt;sup>7</sup> [redacted] It was submitted with the Subject as a Co-PI. The proposal was declined.

<sup>&</sup>lt;sup>8</sup> [redacted] It was submitted with the Subject as a Co-PI. The proposal was awarded [redacted].

<sup>&</sup>lt;sup>9</sup> [redacted] It was submitted with the Subject as PI. The proposal was declined.

<sup>&</sup>lt;sup>10</sup> [redacted] It was submitted with the Subject as PI. The proposal was awarded [redacted].

We also examined these four proposals for evidence of a pattern of plagiarism. Both Proposal 4 (Tab 5) and Proposal 5 (Tab 7) had 37 lines of uncited/improperly cited text (Tabs 6 and 8, respectively).

As a result of our Inquiry, we determined there was sufficient substance to proceed to an investigation, and we referred the investigation (Tab 9) to the Subject's institution (the University).

#### **University Investigation**

The University assigned a Special Committee to investigate the allegation, headed by a Vice President for University Research, who served as the Research Integrity Officer (RIO). The Committee provided us with a cover letter, a report, and report attachments (Tabs 10-12, respectively). The Committee met on three separate occasions and reviewed documents from NSF-OIG, documents received from the Subject, including the 25-page draft of Proposal 1 and institutional records, and proposals written by the Subject. The Subject's computer was secured during the investigation. The Committee deemed interviews with the Co-PIs of Proposal 1 unnecessary as the Subject requested they not be considered in the investigation. The Committee also said it did not have access to any plagiarism software and was not able to "identify plagiarized materials beyond specific source documents which can then be manually compared."

The Committee reviewed the 25-page draft of Proposal 1 and other evidence, and established that "[a] preponderance of the evidence . . . indicated that plagiarism occurred in the proposal submitted by [the Subject]." The Committee reviewed the other two proposals identified as containing potentially plagiarized material, Proposals 4 and 5, and agreed that "a pattern of improper documentation of reference materials" existed. The Committee "agrees that unattributed work of others in proposals is unacceptable and is a departure from accepted practices in the research community." Additionally, "the Committee concluded [the Subject] committed the acts of plagiarism due to her inexperience in scientific writing and grantsmanship. This infraction is considered reckless."

The Deciding Official did not independently reach a conclusion as to whether the Subject committed research misconduct. Based on the evidence presented by the Committee's report, the Deciding Official "imposed [a] sanction that [the Subject] will not be allowed to submit any

<sup>&</sup>lt;sup>11</sup> [redacted] was the Vice President of Institutional Research, Planning and Sponsored Programs.

During the investigation, the RIO took administrative leave for several months. The Associate Provost for Academic Affairs [redacted] became the new RIO with leadership over the Committee and the Provost and Vice President for Academic Affairs [redacted] became the Authorized Organizational Representative (Deciding Official)..

<sup>&</sup>lt;sup>13</sup> Tab 11, p. 3.

<sup>&</sup>lt;sup>14</sup> <u>Id</u>.

<sup>&</sup>lt;sup>15</sup> Tab 11, p. 2.

<sup>&</sup>lt;sup>16</sup> Tab 11, p. 3.

<sup>&</sup>lt;sup>17</sup> <u>Id.</u>

grant proposal (state or federal) until there is assurance that she has undergone adequate training in the areas of scientific writing and grantsmanship." 18

#### **OIG's Investigation**

The Committee's report indicated the Subject provided documentation to the Committee, but it did not include this material in its report to us. Moreover, there was no indication the Subject had been interviewed by the Committee and no notes or memoranda were provided to us. Although the Committee concluded Proposal 1 contained plagiarism and the Subject's actions were reckless and a departure from accepted practices, it did not reach a conclusion about whether the plagiarism was a *significant* departure from accepted practices in the research community.

We wrote to the Deciding Official (Tab 13) requesting copies and any interview memoranda or transcripts, copies of any documents the Subject provided to the Committee, as well as a determination regarding the Subject's actions being a significant departure. We also identified a potential conflict of interests with the Deciding Official, as he was listed as a Special Committee member but was required to give a recommendation independent of the Committee. If a conflict of interests existed, it would be contrary to the University's policy that requires separation of investigation from adjudication. We asked the Deciding Official how the apparent conflict was managed.

The Deciding Official responded to our request (Tab 14) and informed us that the Special Committee did not interview the Subject. This decision was made because the Subject claimed that no written contributions were provided by her Co-PIs and the Committee determined that the Subject's assertion that references were deleted in editing her draft of Proposal 1 from 25 to 15 pages "was incorrect." The Deciding Official also wrote:

The Committee determined that the actions of [the Subject] were a significant departure from accepted practices in the research community. In my role as the Provost and Vice-President for Academic Affairs at [the University], I believe these actions were also a significant departure as well.<sup>21</sup>

The Deciding Official also wrote that he "did not serve on the committee and in no way influenced the decision(s) of the committee." The Deciding Official's name was included on the list of Special Committee members simply to show the administrative changes that took place at the University during the investigation.

We also reviewed the additional documents the University sent at our request. The Subject initially claimed that in her haste to condense a 25-page draft of Proposal 1 down to the

<sup>&</sup>lt;sup>18</sup> Tab 11, p. 4.

<sup>&</sup>lt;sup>19</sup> Tab 12, Attachment 4.

<sup>&</sup>lt;sup>20</sup> Tab 14, p. 1.

<sup>&</sup>lt;sup>21</sup> <u>Id.</u>

<sup>&</sup>lt;sup>22</sup> Tab 14, p. 2.

maximum 15 pages, she omitted citations and references that otherwise would have been included. The University's Committee reviewed the draft proposal and found that it could not reach a conclusion about the Subject's claim based on the draft proposal alone. We reviewed the 25-page draft as well and found that the draft referenced all four of the source documents near the copied text. However, the Subject did not adequately distinguish the source text from her own original text by offsetting the text or using quotation marks.

#### OIG's Assessment

NSF's Research Misconduct Regulation states that a finding of misconduct requires: (1) there be a significant departure from accepted practices of the relevant research community; (2) the research misconduct be committed intentionally, or knowingly, or recklessly; and (3) the allegation be proven by a preponderance of the evidence.<sup>23</sup>

#### The Act<sup>24</sup>

The Subject copied approximately 106 lines of text from 4 different source documents into Proposal 1. The text was primarily found in the background and methodology sections of the Subject's proposal. We subsequently checked four of the Subject's previous NSF proposals and identified 74 additional lines of copied text from two source documents in Proposals 4 and 5. The NSF Grant Proposal Guide is clear with regard to citation practices: "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 care for this concern." 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 failed to give appropriate credit to the actual authors.

#### <u>Intent</u>

The Subject admitted she copied material from the source documents into Proposal 1. In her initial response to the allegation, the Subject claimed she had written a lengthier, 25-page draft that had included references and citations to her sources and that these references were deleted in editing Proposal 1 to the 15-page limit. We reviewed the Subject's 25-page draft and found that while all of the four source documents were mentioned in the proposal references or within the text itself, none of the verbatim text taken from these sources was appropriately cited. Thus, even in its original draft form, Proposal 1 contained plagiarized text. The Subject aggravated the plagiarism by removing three of the four references in the editing process. Consequently, the plagiarism was carried through to the final, submitted version of Proposal 1. Although the Subject practices within the academic community and, accordingly, should know its standards, the University found her inexperience at grant writing was a factor in her state of mind, and, therefore, concluded her actions represent reckless behavior. We agree with the University's

<sup>25</sup> NSF Grant Proposal Guide, Chapter I, Section D.3.

<sup>&</sup>lt;sup>23</sup> 45 C.F.R. §689.2(c).

While we considered the Act to be plagiarism in Proposals 1, 4, and 5, we note that in its report the University considered the Act to be plagiarism in Proposal 1, with a pattern exhibited in Proposals 4 and 5.

assessment and conclude the Subject acted recklessly when she copied text into her draft proposal without appropriate attribution, and when she further condensed the text and removed almost all of the already-inadequate references to the original authors.

#### Significant Departure

Based on the evidence, the Subject's responses, and the University's investigation, we conclude, by a preponderance of evidence standard, the Subject recklessly copied unattributed text into Proposal 1 without appropriately distinguishing this text from her own work. In doing so, the Subject significantly departed from the accepted practice of her research community, as determined by the University's investigation and NSF. A major scientific publisher in the Subject's field "considers plagiarism in any form, at any level, to be unacceptable and a serious breach of professional conduct." <sup>26</sup>

Accordingly, we conclude that the Subject plagiarized and, hence, committed research misconduct.

#### OIG's Recommended Disposition

In deciding what actions are appropriate when making a finding of research misconduct, NSF must consider several factors. These factors include how serious the misconduct was; degree of intent; whether it was an isolated event or part of a pattern; its impact on the research record; and other relevant circumstances.<sup>27</sup>

#### Seriousness:

The University concluded the preponderance of evidence supports the conclusion that the Subject acted recklessly when she plagiarized material into Proposal 1. Plagiarism violates research integrity and is a significant departure from accepted practices in the research community. We conclude the amount of plagiarized text is sufficiently serious to warrant a finding of research misconduct.

#### <u>Degree of Intent</u>

As we noted above, the University concluded the Subject acted recklessly, which is a culpable level of intent. The Subject received a significant amount of her education in a foreign country, but nonetheless has many years of experience at U.S. research institutions. Therefore it is reasonable to conclude she should have been aware of the requirement to cite and distinguish

<sup>&</sup>lt;sup>26</sup> See the SPIE Publications Ethics Guidelines entitled "SPIE Guidelines for Professional Conduct." The Subject has a paper entitled [redacted] published in the Proceedings of SPIE.

<sup>&</sup>lt;sup>27</sup> 45 C.F.R. §689.3(b).

<sup>&</sup>lt;sup>28</sup> [redacted].

<sup>&</sup>lt;sup>29</sup> [redacted].

others' work when using it verbatim. In its report, the University concluded the Subject plagiarized because of her inexperience and lack of training in scientific writing and citation practices. We agree that lack of formal training is a mitigating, but not exculpatory, factor. Therefore, we consider the Subject's actions to be distinctly reckless.

#### **Pattern**

During our inquiry, the Subject told us there was no unattributed copied text in any of her other NSF proposals. We determined that there was also unattributed copied text contained in two of the Subject's previous NSF proposals. Therefore, we conclude that the three proposals present distinct evidence of a pattern of plagiarism.

#### Impact on the Research Record

The effect on the research record as a result of the Subject's actions was minimal as the primary proposal containing plagiarized text that was the focus of this investigation was part of a confidential proposal that was declined funding. One of the Subject's two other proposals containing unattributed text was declined, and while the second was awarded, the copied text was in the background section of the proposal. The University also believed the Subject's "reckless actions had a limited impact on the research record." 30

#### Subject's Response to Report

We sent our draft Report of Investigation to the Subject advising her of her right to provide comments or rebuttal to it (Tab 15). The Subject emailed us stating she would not rebut the report (Tab 16). The Subject agreed that she did not properly cite her sources, even in the 25-page draft proposal. The Subject said the "improper citations were unintentional and without malice," and she was "seeking courses to help [her] with proper citation practices." The Subject's response did not change our recommendations.

#### Recommendations

We recommend NSF take the following actions as a final disposition in this case to protect the interests of the Federal Government:

<sup>30</sup> Tab 11, p. 4.

<sup>&</sup>lt;sup>31</sup> Tab 16.

(1) Issue a letter of reprimand informing the Subject that NSF has made a finding of research misconduct against her;<sup>32</sup>

- (2) Require the Subject to take a course on responsible research practices with emphasis on proper citation and attribution practices before submitting additional proposals to NSF;<sup>33</sup>
- (3) For the next 2 years, require the Subject to provide a certification with every submission to NSF that the submitted work is either entirely her own writing or is properly cited;<sup>34</sup>
- (4) For the next 2 years, require the Subject to ensure her employer submits assurances that the submitted work is either entirely the Subject's own writing or is properly cited.<sup>35</sup>

The proof of course completion, certifications, and assurances should be sent to the Assistant Inspector General for Investigations (AIGI) for retention in OIG's confidential file on this matter.

<sup>32</sup> This is a Group I action (45 C.F.R. § 689.3(a)(1)(i)).

<sup>&</sup>lt;sup>33</sup> This is similar to a Group I Action (45 C.F.R. § 689.3(a)(1)).

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