

NATIONAL SCIENCE FOUNDATION  
OFFICE OF INSPECTOR GENERAL  
OFFICE OF INVESTIGATIONS

## CLOSEOUT MEMORANDUM

Case Number: A04050040

Page 1 of 1

While reviewing documents in our office, we found two NSF Small Business Innovation Research Phase 1 proposals<sup>1</sup> submitted by the subject<sup>2</sup> that contained plagiarized text and figures from multiple source documents. We conducted an investigation and recommended that NSF's Deputy Director send the subject a letter of reprimand informing him that NSF has made a finding of research misconduct against him; require the subject to certify proposals submitted by him, or on his behalf to NSF for the next 3 years, be certified to OIG that, to the best of his knowledge, they contain nothing that violates NSF's Research Misconduct regulation; and require the subject attend a course in research ethics within one year of the final disposition of the case. NSF's adjudicator sent the subject a letter of reprimand, required the subject to certify to OIG for 3 years that submitted NSF proposals on which he is the PI or co-PI contain no plagiarized, fabricated, or falsified information, and required the subject to certify in writing to OIG within one year that he completed an ethics training course on plagiarism. The attached report of investigation and the Deputy Director's letter to the subject detail NSF's actions regarding this matter.

This case is closed and no further action will be taken.

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NATIONAL SCIENCE FOUNDATION  
4201 WILSON BOULEVARD  
ARLINGTON, VIRGINIA 22230



OFFICE OF THE  
DEPUTY DIRECTOR

**CERTIFIED MAIL --RETURN RECEIPT REQUESTED**

MAY 25 2006

*Re: Notice of Misconduct in Science Determination*

Dear [REDACTED]

On or about January 20, 2004, you submitted three proposals to the National Science Foundation ("NSF"). These proposals were entitled [REDACTED] and [REDACTED]. As documented in the attached Investigative Report prepared by NSF's Office of Inspector General ("OIG"), these proposals contained text and graphical figures that were plagiarized.

Scientific 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). 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).

In your proposal, you misappropriated text and copied graphical images from several source documents into the proposals without providing proper attribution for such material. By submitting proposals to NSF that copy 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 misconduct was knowing 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).

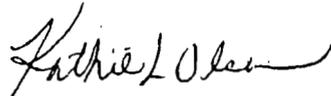
In determining the severity of the sanction to impose for research misconduct, I have considered the seriousness of the misconduct; our determination that it was *knowing*; the determination that it was a part of a pattern; your willingness to accept responsibility for your actions; and the fact that your conduct did not have an impact on the published research record. I have also considered other relevant circumstances. 45 CFR § 689.3 (b).

In light of the foregoing, I am requiring that, from the date of this letter until May 1, 2009, you certify that any proposals submitted by you to NSF as a principal investigator or co-principal investigator do not contain any plagiarized, fabricated or falsified information. Such certifications should be sent to the Office of Inspector General ("OIG"), 4201 Wilson Boulevard, Arlington, Virginia 22230. Furthermore, you are required to complete an ethics training course on plagiarism by June 1, 2007. You must certify in writing to the OIG that such training has been completed.

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 a response to this notice 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,



Kathie L. Olsen  
Deputy Director

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Enclosures

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

## Summary

The Office of Inspector General (OIG) has concluded the subject,<sup>1</sup> while employed by a small business company (the company), plagiarized text and figures from multiple source documents into two Small Business Innovation Research (SBIR) Phase I proposals he submitted to the National Science Foundation (NSF). We recommend that NSF's Deputy Director send the subject a letter of reprimand informing him that NSF has made a finding of research misconduct against him, and that when proposals are submitted by him or on his behalf to NSF, he be required to submit a certification to OIG that, to the best of his knowledge, they contain nothing that violates NSF's Research Misconduct regulation. NSF should inform the subject that the certification requirement is in effect until 3 years have elapsed from the final disposition of this case.

## OIG's Inquiry

OIG reviewed an allegation that the subject, while working at the company, plagiarized material in several proposals he prepared for submission to NSF by the company. Our initial review suggested that three of the subject's simultaneously submitted NSF SBIR proposals<sup>2</sup> (Tab 1) appeared to have materials copied (text and figures) from multiple source documents (Tab 2). In several instances, the appropriate relevant citation for the specific copied text was provided in the proposals, but often not directly associated with the copied text. However, none of the allegedly copied text in the subject's proposals were offset or distinguished in any way to enable the reader to differentiate the apparently copied text from the subject's own text. Likewise, none of the allegedly copied figures (a total of nine in the three proposals) were distinguished in a way to enable the reader to differentiate the apparently copied figures from the subject's own figures in the proposals.<sup>3</sup>

On 12 January 2005, we wrote to the subject (Tab 3). The subject responded in a 2 February 2005 email (Tab 4). He stated that he "took some information from these sources."<sup>4</sup> However, he stated that he "used all the information by citing the source."<sup>5</sup> He further explained that he 1) thought the sources he cited were the original sources;<sup>6</sup> 2) occasionally made a few errors or "messed up;"<sup>7</sup> and/or 3) "mentioned" the original source in the text of the proposal for the copied sections.<sup>8</sup>

<sup>1</sup> [REDACTED], formerly a scientist at [REDACTED] (the company), is presently employed by [REDACTED] with 5 employees.

<sup>2</sup> Funded proposal [REDACTED] entitled "[REDACTED]" was submitted by the subject as the sole PI on [REDACTED] 2004; Declined proposal [REDACTED], entitled "[REDACTED]" was submitted by the subject as sole PI on [REDACTED] 2004; and Declined proposal [REDACTED], entitled "[REDACTED]" was submitted by the subject as the sole PI on [REDACTED] 2004.

<sup>3</sup> These include: one figure in [REDACTED] (A-6); one figure in [REDACTED] (E-1); and seven figures in [REDACTED] (J-1, K-4, L-1, L-2, N-1, N-2, and N-3).

<sup>4</sup> Tab 4, page 2, answer 1

<sup>5</sup> Tab 4, page 2, answer 2

<sup>6</sup> Tab 4, examples: page 2, answers to A-1 through A-6, page 2, answer to B-1

<sup>7</sup> Tab 4, examples: page 2, answer to I-1; page 3, answer to D-2

<sup>8</sup> Tab 4, examples: page 2, answers to J-1, K-1, K-2, K-3, page 3, answers to K-4, L-1, L-2, M-1, N-1, N-2, N-3, C-1, D-1, F-1, G-1, G-2, H-1.

Our review of the subject's response showed that when he "mentioned" the correct citations within the text of the proposals, these citations did not always appear to be directly associated with the copied text.<sup>9</sup> Further, we noted other inconsistencies in his response.<sup>10</sup> The subject did clarify the source of figure K-4, a source different from source document K. He explained, and we verified, that his citation for the source of this figure was correct. However, as with the other allegedly copied figures in these proposals, he did not cite figure K-4 in a way that made it clear it was the work of another and not his own work.

As a result of our inquiry, we determined that there was sufficient substance to proceed to an investigation.<sup>11</sup> Because the subject was no longer at the company from which he submitted the proposals and because his new employer was also a small SBIR company (see footnote 1), we elected to do our own investigation. We wrote to the subject on 18 April 2005 informing him that we had initiated an investigation (Tab 5).

### OIG's Investigation

On 21 June 2005, we wrote to the subject with additional questions about these alleged copied materials (Tab 6). The subject responded on 12 July 2005 (Tab 7). In the subject's cover letter, he stated that he tried to use original sources as his references, a procedure that lead to some wrong original source citations. He stated that

Generally, I always use technical papers as references in the publications on peer journals and conference. I didn't use a website as a reference (see some of my research articles attached). Secondly, I didn't cite the reference both in the text and figures. This leads to some text or figures without reference. I didn't realize this was an improper manner that time. Thirdly, there are a few of wrong citations caused by mis-labeling or a typographical error. Almost all the suspected citations are coming from these manners. I would say that if this was going to be a published paper, I would have taken care to reference the paper. And if I publish a technical paper I will have a chance to correct my references before it is open to public because the reviewers will point it out to be corrected.

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<sup>9</sup> Examples of instances when subject's citation does not appear precisely with the copied materials: D-1, F-1, G-2, J-1, K1, K-2, K-3, L-1, and L-2.

<sup>10</sup> Examples: 1) the source cited by the subject for figures N-1, N-2, and N-3 did not contain these figures; 2) the text for M-1 cited by the subject was not in his citation list; 3) the subject did not cite any source for figure E-1 and text E-2. He explained the work as shown by E-1 and E-2 was accomplished by the company. He stated that he mentioned in the beginning of the proposal that "[a]t [the company], we have developed a novel [REDACTED] [REDACTED]" (Proposal [REDACTED], page 1). The subject said that scientists who worked for the company published the work with the figures (E-1) and the text (E-2). This statement is, however, not entirely correct. The primary author of source document E was not affiliated with the company. The primary author (source document E), [REDACTED], was at [REDACTED]. Only the second and third authors worked for the company at the time source document E was published.

<sup>11</sup> [REDACTED]: about 9 lines of text and one figure appeared to have been copied. [REDACTED]: about 31 lines of text and one figure appeared to have been copied. [REDACTED]: about 12 lines of text and 7 figures appeared to have been copied.

In my mind, the purpose of a proposal is to convey a new idea to a reviewer. It is not an open document and so it cannot be held to the same standards as a peer reviewed scientific article in terms of references. In my understanding proposals and papers do not fall in the same category of scholarship. The most sacred thing in a technical proposal is the idea that is put forth. I didn't steal any idea from any others. I reiterate that it is not acceptable practice to copy other materials directly to the proposal or any publication without citations. In my proposals, I tried to cite all the sources as accurate as possible. For example, I tried to find an original source rather than a website to be the reference. But this manner leads to some improper citations. I never tried to avoid any citation.<sup>[12]</sup>

In the subject's response, he provides several different explanations for the lack of accurate citation. Some examples of his explanations for the copied text include:

1. With respect to the copied text in C-1, he states that he "did not put the text taken from a specific reference in quotes since it usually makes reading a proposal difficult."<sup>13</sup>
2. With respect to the copied text in D-1, the subject explains, "[t]he sentence in the proposal is a factual statement, and therefore did not feel the need to change the language. I agree that the reference number 3 was misplaced, but it was a typographical error."<sup>14</sup>
3. With respect to the copied text D-2, he states, "[t]he name of the authors . . . was mentioned, but just the number [citation] was typed wrong," and "[t]here is usually not any better way to re-state one single sentence that an author has written in a paper. Any other way of re-writing one sentence that describes a test result is almost sure to not be the best way to portray the result. I would like to reiterate that there was no intention to distort the truth."<sup>15</sup>
4. With respect to the copied text associated with F-1. G-1. G-2, and H-1, the subject explains, "[t]his section describes the commercial potential of the technology area that the proposal idea addressed. Since I am not an expert in this particular market (from a business perspective) I felt that I would simply distort the information if I tried to rewrite the summary that the three references provided. Therefore, I just wrote them as is."<sup>16</sup>
5. With respect to the copied text associated with K-1, K-2, and K-3, the subject explains, "I did not cite the reference [6] in the following paragraph to avoid repeating citation. I did not realize that this was improper. I NEVER did it on purpose."<sup>17</sup>
6. With respect to the copied text with M-1, the subject agrees that his reference was cited "by error."<sup>18</sup>

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<sup>12</sup> Subject's 12 July 2005 response, cover letter

<sup>13</sup> Tab 7, page 2 of detailed response

<sup>14</sup> Tab 7, page 2 of detailed response

<sup>15</sup> Tab 7, page 2 of detailed response

<sup>16</sup> Tab 7, page 3 of detailed response

<sup>17</sup> Tab 7, page 3 of detailed response

<sup>18</sup> Tab 7, page 4 of detailed response

With respect to the alleged copied figures, the subject states that he was not aware that he needed to cite the reference in the figure captions and the text. Although in many instances the subject included the appropriate citation for the figures within the correlated text of the proposals, this approach made it unclear to the reader that he had copied these figures. He said he would correct this with his future work.<sup>19</sup>

However, with respect to figure E-1, the subject continues to claim that this was work done by employees of the company and he

did not feel that a reference needed to be given, since the proposal clearly mentions that the work was carried out at [the company]. I would say that if this was going to be a published paper, I would have taken care to reference the paper [see footnote 10, E-1 discussion]. In my mind, the purpose of a proposal is to convey a new idea to a reviewer. It is not an open document and so it cannot be held to the same standards as a peer reviewed scientific article in terms of references. Instances of mis-labeling references such as the case here, are more often than not brought to the attention of the author by the reviewers of the papers. A second chance is always given to the author to correct mis-labeled references.<sup>20</sup>

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

We sent a draft copy of OIG's Investigation Report to the subject for comment. On 24 October 2005, the subject responded (Tab 8) that he was not the author of one of the three NSF proposals.<sup>21</sup>

I did not write this proposal, although I was the PI. I have no clue on alleged text or Figure of Annotated C-1, D-1, E-1, E-2, F-1, G-1, G-2 and H-1. All the previous responses were written by [the company], not me. I asked [the company] to write more explanation again and they agreed, but I did not get it by the time I sent (October 24, 2005).<sup>22</sup>

The above statement was inconsistent with the subject's earlier responses about the second proposal (Tabs 4 and 7). However, in these earlier responses, he did not specify that someone else wrote the second proposal. As a result of the subject's claim that he was not the author of the second proposal, we wrote to him for further clarification (Tab 9).

The subject responded on 18 November 2005 (Tab 10). He provided a copy of an email he claimed he received from the company with the answers to the questions about the second

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<sup>19</sup> Tab 7, pages 3 and 4 of detailed response including K-4, L-1, L-2, N-1, N-2, and N-3.

<sup>20</sup> Tab 7, page 2 of detailed response.

<sup>21</sup> Declined proposal [REDACTED], entitled "[REDACTED]".

<sup>22</sup> Tab 8, page 3.

proposal, answers that he said he used.<sup>23</sup> In addition, the subject provided the name of the CEO at the company, requesting that we contact him about this matter.

We wrote to the CEO<sup>24</sup> (Tab 11). The CEO responded on 8 December 2005 (Tab 12). He stated that the subject did not write the second proposal. He provided the name of the individual (actual author)<sup>25</sup> who wrote the second proposal. He explained that the company had determined that the subject, who was an employee of the company at the time, would be the best person to be the PI on the second proposal, not the actual author. The CEO acknowledged that the subject requested his assistance in answering OIG's questions about the second proposal. He explained that the actual author of the second proposal provided the written answers to the questions and he (the CEO) acted as an intermediary, editing the text of the answers and forwarding them to the subject.

OIG determined that the second proposal with 31 lines of copied text and 1-copied figure would be excluded from the assessment of this matter.<sup>26</sup> The remaining two proposals, however, included a total of about 43 lines of copied text and 7-copied figures. Our assessment was modified to reflect these new facts.

#### 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; and (2) The research misconduct be committed intentionally, or knowingly, or recklessly; and (3) the allegation be proven by a preponderance of the evidence.<sup>[27]</sup>

#### THE ACT

The subject admits that he copied these materials.<sup>28</sup> He states that, other than when he used the wrong citations because of errors or mistakes, he believes he cited everything appropriately. He did not see any need to quote or otherwise distinguish text and figures copied from other sources into his proposals. Further, he considers proposals to be avenues for presenting ideas and not

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<sup>23</sup> The subject admits he copied responses to the questions we asked him, about the second proposal, without stating that another individual wrote the responses. Without this information, we naturally assumed these were the subject's responses.

<sup>24</sup> [REDACTED], CEO of the [REDACTED].

<sup>25</sup> [REDACTED], employee, [REDACTED].

<sup>26</sup> We excluded the second proposal in our evaluation of this matter because the subject was not the author. We have opened an inquiry into the apparently copied material in the second proposal.

<sup>27</sup> 45 CFR § 689.2(c).

<sup>28</sup> The subject accepted responsibility for the authorship of two of the three proposals ([REDACTED] and [REDACTED]). We note that the subject's July 12, 2005, response (Tab 8) contained text copied from the company email (Tab 10) as his answers to our questions about the second proposal ([REDACTED], which he now claims he did not write). His cover letter for his July 12, 2005, response also included text copied from the company email, although reorganized. The subject has not disavowed his response in his cover letter. Because he signed the cover letter, we must assume that, although he copied text and ideas from the company email, he accepted/adopted these words and ideas as his own as well.

scholarly works at the level of technical papers, conference papers, and other published papers. This is in stark contrast to NSF guidance:

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. Serious failure to adhere to such standards can result in findings of research misconduct. NSF policies and rules on misconduct in science and engineering are discussed in *Grant Policy Manual* (GPM) Section 930 as well as in 45 CFR Part 689. (GPG section I.B.(10/2003)).

His attitude<sup>29</sup> places the responsibility on reviewers to catch many of the citation errors so the author(s) can correct these prior to publication. It presupposes that the reviewers will know when figures and text have been copied without appropriate citation and removes the responsibility from the author(s) of the proposals and papers to do careful scholarly work in the first place.

The subject displays a surprising lack of understanding of the scholarly standards expected by the scientific community for appropriately citing the work of others. The subject completed his PhD and post-doctoral work at distinguished U.S. institution.<sup>30</sup> Therefore, we dismiss any notion that he was not aware of the scholarly standards that are basic to the U.S. research communities.

The subject claims he did not steal ideas. However, by improperly citing text and figures within his proposals, he fails to acknowledge the effort of others includes the text development and the figure production. Further, he thinks that quotes interfere with the reading of a proposal. He does not understand that placing a reference in a proposal is not sufficient when copying text and figures from another source. By not appropriately citing verbatim text and figures, by placing the reference at the end of a quoted passage without distinguishing the quoted text, by placing the reference in the text of the proposal but not specifically associated with the copied text of figure, by failing to provide the correct citation, or by failing to provide any citation at all, the subject is presenting these copied items as his own work.

#### INTENT

By his own admission, the subject acknowledged that he copied text and figures without appropriate citations into his proposals. The fact that he copied numerous figures into his proposals makes it impossible to conclude that the subject acted in anything less than a knowing manner. Therefore, we conclude that the subject acted knowingly when he copied text and figures into his proposals.

#### STANDARD OF PROOF

We believe the preponderance of the evidence indicates that the subject copied text and figures into his proposals without appropriately distinguishing these from his own work. In doing so, the

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<sup>29</sup> See footnote 27.

<sup>30</sup> Subject completed his PhD work at [REDACTED] and conducted his post-doctoral work at [REDACTED]

subject significantly departed from the accepted practice of the scientific community. Since the preponderance of evidence supports the conclusion that the subject acted knowingly when he copied these materials, we conclude the subject committed plagiarism and therefore 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; whether it was an isolated event or part of a pattern; its impact on the research record; and other relevant circumstances.<sup>31</sup>

#### Seriousness

As we noted above, we concluded the preponderance of evidence supports the conclusion that the subject acted knowingly when he plagiarized materials into his proposals, a significant departure from the accepted practice in the scientific community. Plagiarism strikes at the heart of scientific integrity and is an unacceptable practice within the scientific community. Although the amount of plagiarized text was modest, the number of copied figures was excessive. Therefore, we believe the level of misconduct was serious.

#### Pattern

The subject's proposal submission history indicates that he simultaneously submitted four proposals to NSF in 2004. These four proposals were the only proposal submissions by the subject to NSF. However, two of these proposals were found to contain copied text and figures.<sup>32</sup> This suggests that the subject's actions were a part of a pattern. The fact that the subject claims that he was unaware of any requirement to reference quote the text or reference the figures suggests that he would continue this pattern in future proposals had this matter not been brought to our attention.

#### Impact on the research record

There was no apparent impact on the research record as a result of the subject's actions.

#### Recommendations

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

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<sup>31</sup> 45 CFR § 689.3(b).

<sup>32</sup> As part of the investigation, three of the four proposals were found to have copied text, but, following the subject's review of the draft investigation report, he claimed he was not the author of one of these proposals (see footnotes 25 and 27).

1. Issue a letter of reprimand informing the Subject that NSF has made a finding of research misconduct against him.<sup>33</sup>
2. For a period of 3 years from the date of the final disposition of this case, when the subject is a principal investigator or co-principal investigator on a proposal submitted to NSF for funding, the subject will certify in writing that he has recently reviewed NSF's Research Misconduct regulation (45 C.F.R. §689), and that the grant application is free of any misconduct.<sup>34</sup>
3. Direct the subject to attend a course in research ethics within one year of the final disposition of the case.

The subject's certifications and proof of an ethics course should be sent to the Associate Inspector General for Investigations for retention in OIG's confidential file on this matter.

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<sup>33</sup> A letter of reprimand is a Group I action.

<sup>34</sup> Assurance of compliance is a Group I action.