

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

#### **CLOSEOUT MEMORANDUM**

Case Number: A13010008 Page 1 of 1

OIG conducted an investigation into an allegation of plagiarism in two NSF proposals<sup>1</sup>. Upon further review, we identified text copied verbatim without appropriate credit in eight proposals submitted to NSF. OIG concluded, based on a preponderance of the evidence, that the Subject knowingly committed plagiarism in those proposals, which was a significant departure from accepted practices. We recommended NSF take actions to protect the federal interest. The Deputy Director concurred and took appropriate action.

The attached Report of Investigation describes our investigation that resulted in NSF making a finding of research misconduct and debarring the PI for one year. The closeout documents consist of this Memorandum, our report, and NSF's adjudication. This case is *closed* with no further action taken.

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## National Science Foundation Office of Inspector General



# Report of Investigation Case Number A-13010008

February 28, 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**

Allegation:

Plagiarism.

#### **University Action:**

The University identified potentially copied text in two journal manuscripts and two proposals submitted to NSF. It conducted an investigation that concluded, based on a preponderance of the evidence, that the Subject intentionally committed plagiarism, which was deemed a significant departure from accepted practices. The University placed a letter of reprimand in the Subject's file and will require that he undergo special scrutiny when submitting any future grant applications.

## OIG Investigation and Assessment:

- The Act: The Subject committed plagiarism in 8 proposals that contain 509 unique lines of copied text, 1 figure, and 4 embedded references plagiarized from 31 sources.
- Intent: The Subject acted knowingly.
- Standard of Proof: A preponderance of evidence supports the conclusion that the Subject knowingly committed plagiarism.
- **Significant Departure:** The Subject's plagiarism represents a significant departure from accepted practices of his academic field.
- Pattern: Eight proposals the Subject submitted to NSF contain plagiarism.

### OIG Recommends:

- Make a finding of research misconduct against the Subject.
- Send the Subject a letter of reprimand.
- Debar the Subject for one year from the date of NSF's finding.
- Require certifications from the Subject for a period of three years postdebarment.
- Require assurances from the Subject for a period of three years postdebarment.
- Require certification of attending an RCR class within one year.
- Bar the Subject from serving as a reviewer during the debarment period and for three years post-debarment.

#### **University's Inquiry**

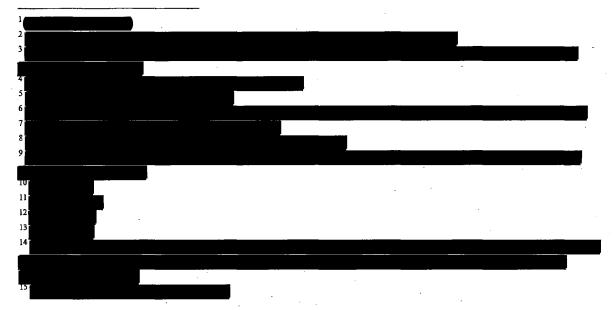
The University<sup>1</sup> received an allegation that a professor (the Subject<sup>2</sup>) plagiarized text in two proposals<sup>3</sup> submitted for university review with the intention of submitting them to a major professional association<sup>4</sup>. The University's pre-inquiry committee<sup>5</sup> determined the allegation met the definition of research misconduct<sup>6</sup>, and was sufficiently credible to merit further evaluation.<sup>7</sup>

The Preliminary Inquiry Committee ("PIC") reviewed the two proposals and the alleged source documents<sup>8</sup> for evidence of plagiarism. The Subject, in response to the allegation, indicated he had mistakenly submitted an unfinished draft of the proposal due to time constraints<sup>9</sup>. He stated the unfinished draft contained online information he collected for the proposal that he did not alter because he "did not want to lose its meaning since he was not an expert in the field." He further explained the information in the allegedly copied sections was "common and well known information," and he "never was making the claim in the proposals that it was his own work." However, the Subject did acknowledge that verbatim text taken from others should be denoted by quotation marks. 13

The PIC also identified potential plagiarism within two proposals submitted to NSF by the Subject<sup>14</sup> ("Proposal 1" and "Proposal 2"). At the PIC's request, we reviewed the NSF proposals with our plagiarism software and provided the results to the PIC. Based on the results and other evidence, the PIC concluded an investigation was warranted.

#### **University Investigation**

Consistent with our policy, OIG referred the matter to the University<sup>15</sup>. A Full Investigation Committee ("Committee") examined the Subject's two internal proposal submissions and alleged source documents, the two NSF proposals and the plagiarism reports generated by OIG, and conducted an interview with the Subject. It found "extensive" plagiarism



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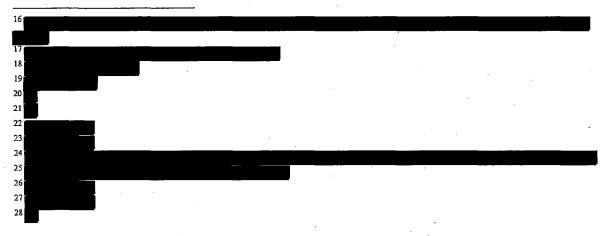
in both NSF proposals and one of the internal proposals.<sup>16</sup> They determined the second internal proposal "seems to contain some plagiarized material, but on a smaller scale."<sup>17</sup>

During his interview with the Committee, the Subject acknowledged "he should have used quotation marks and it was a stupid mistake," but argued that because a number of sections of unattributed text were background materials, including text copied verbatim from Wikipedia, no citation to the original source was necessary. The Committee "disagrees with [the Subject's] contention" that he had made allowable use of background materials. They noted "common knowledge refers to the concept, not the verbatim use of other people's words" and expressed skepticism that the Subject was not aware of proper citation practices. The Committee "feels that [the Subject] is not naive with regards to the concept of plagiarism" and observed 'it is clear from [the Subject's] interview that he knew the proper procedures for use of quotation, referencing and citation."

The Committee concluded, based on a preponderance of the evidence, that the Subject intentionally committed extensive plagiarism in several proposals, including both of the NSF proposals at issue. It found the Subject acted intentionally, in part because he showed "a pattern of continued use of whole verbatim sentences and sections, including sentences where [he] interposed one or a few words within the sentence or section, showing intent to alter the sentence to appear as if he had drafted the sentences or section." It also emphasized "that in his role as Associate Editor" for a respected journal, "he should be well aware of what constitutes plagiarism." They further concluded that "the plagiarism committed by [the Subject] was clearly a departure from accepted practices." <sup>23</sup>

#### Subject's Response to University Report

In his response to the University's report, <sup>24</sup> the Subject reiterated that the copied portions of the proposal did not require citation because they did not "represent a new idea to be funded for a research project" and were "background materials only and therefore cannot be viewed as a misappropriation of the intellectual property of another." He also claimed to have been "influenced by the changing standards on the Internet," arguing "[i]t has become common and accepted practice to include source material as references at the end of articles (without including citations within the article directly next to the material) and doing so clearly indicates there is no intent to represent that work as the author's own." The Subject further asserted that some of



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the copied text was "in the public domain" because the source material was found on a website. The Committee determined the Subject's comments did not alter their findings or the conclusion that he committed plagiarism.

#### University Adjudication

The University's adjudicator<sup>31</sup> accepted the Committee's findings and recommendations. He placed a formal letter of reprimand<sup>32</sup> in the Subject's personnel file and will require that he "undergo special scrutiny when submitting any future grant applications."<sup>33</sup> The University is also "continuing implementation of mandatory training of responsible conduct of research training for all individuals related to research activity."<sup>34</sup>

#### OIG's Investigation

We conclude that the University's report is both accurate and complete, and the University followed reasonable procedures in conducting its investigation.<sup>35</sup> Because the Subject exhibited a pattern of plagiarism in the documents reviewed by the University, we conducted our own investigation to determine if plagiarism existed in additional NSF proposals.

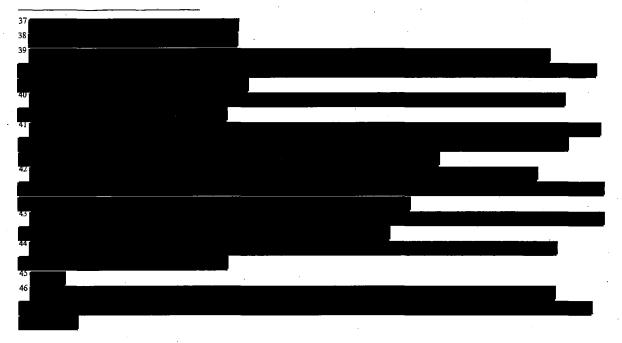
Despite the Subject's claim that "he does not believe . . . that there are errors in his past work," we found additional plagiarism in a number of his previous NSF proposals. In total, the eight NSF proposals, including the 2 analyzed during the University's investigation, contained 509 lines of unique copied text. The table below shows the text the Subject copied by source into each of those proposals.



	Lines of copied text	Lines of unique copied text	Copied embedded references	Copied figures
Proposal 1 <sup>37</sup>	56	56	0	0
Proposal 2 <sup>38</sup>	55	55	0	0
Proposal 3 <sup>39</sup>	25	25	1 .	1
Proposal 4 <sup>40</sup>	51	51	0	0
Proposal 5 <sup>41</sup>	162	162	3	0
Proposal 6 <sup>42</sup>	166	135	0	0
Proposal7 <sup>43</sup>	62	0	0	. 0
Proposal 8 <sup>44</sup>	73	25	0	0
Total	650	509	4	1

A total of 650 lines of copied text were found, 509 of them unique, as well as four total embedded references and one copied figure, taken from a total of 31 sources. Two of the eight proposals each contained more than 160 lines of copied text. We also examined a number of published papers authored by the Subject and determined those papers did not contain plagiarism.

To identify the accepted practices of the Subject's relevant research community, we examined the ethical guidelines of a leading professional society<sup>45</sup> in the Subject's field. The subject notes in his biosketch that he is a "Life Fellow" of this society, and he served as an associate editor for one of its journals.<sup>46</sup> The society's "Ethical Standards for Authors in the Publication of [the Society's] Journals" states:





During the Committee's interview of the Subject, he agreed with the above definition of plagiarism.<sup>48</sup> Although the Subject contends he was unaware that verbatim copying was unacceptable, he was able to implement proper citation practices at times, such as in his journal articles. For example, text that he plagiarized from Source 1 into Proposal 5<sup>49</sup> was later included in Proposal 7, where the Subject distinguished the copied material from his own work with quotation marks.<sup>50</sup> In addition, the Subject completed a course on the responsible conduct of research at the University in September 2011.<sup>51</sup>

#### OIG's Assessment

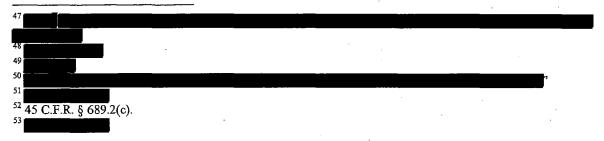
A finding of research misconduct by NSF requires that (1) there be a significant departure from accepted practices of the relevant research community; (2) the research misconduct be committed intentionally, knowingly, or recklessly; and (3) the allegation be proved by a preponderance of the evidence. <sup>52</sup>

#### The Acts

The Committee found, by a preponderance of the evidence, that the Subject "intentionally plagiarized" material in two NSF proposals and two proposals internal to the University. Our review found the Subject copied 509 unique lines, 1 figure and 4 references into 8 declined NSF proposals. OIG concludes the Subject's actions constitute plagiarism under NSF's definition.

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

The Committee rejected the Subject's claim that the plagiarism resulted from carelessness and found the Subject acted intentionally in plagiarizing text. They determined the Subject showed "intent to alter the sentences to appear as if he had drafted the sentences or section." The Committee also noted that "it [was] clear" from the Subject's interview and



background "that he knew the proper procedures for use of quotations, referencing, and citation." We agree that the Subject acted intentionally.

#### Significant Departure

In offering material composed by others as his own, the Subject misrepresented his own efforts and presented reviewers with an incorrect measure of his abilities. Based on the Committee's finding that the plagiarism "was clearly a departure from accepted practices," bolstered by the significant amount of additional plagiarism we found, we conclude the Subject's acts of plagiarism constituted a significant departure from accepted practices.

#### Standard of Proof

We conclude that a preponderance of the evidence proves that the subject intentionally plagiarized, thereby committing research misconduct.<sup>56</sup>

#### 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>57</sup>

#### <u>Seriousness</u>

The Subject's actions are a violation of the standards of scholarship and the tenets of general research ethics. Copied text serves to misrepresent one's body of knowledge, presenting reviewers with an inaccurate representation of a proposal's merit. While the plagiarized text did not have an impact on the published research record, the quantity of plagiarized passages was significant and found in eight of his NSF proposals. Despite the Subject's repeated assurances that there were no instances of copied text in previous NSF proposals, and recurring claims that references were included for the sources, our investigation showed these claims to be untrue. Furthermore, we find it troubling that the Subject did not plagiarize in his previously published work, but plagiarized extensively in proposals submitted to

<sup>54</sup> 55 **.....** 

<sup>&</sup>lt;sup>56</sup> 45 C.F.R. § 689.

<sup>&</sup>lt;sup>57</sup> 45 C.F.R. § 689.3(b).

NSF over a period spanning nearly a decade. The Subject's plagiarism is rendered even more serious by the fact that the he serves as an editor of a major professional society's journal where there is an expectation of enforcing and maintaining the highest commitment to academic standards. Thus, we conclude he was aware of proper citation practices and simply chose not to abide by them. We therefore conclude the amount of plagiarized material and the Subject's blatant disregard for proper citation is sufficiently egregious to warrant a finding of research misconduct.

#### Pattern and Impact

The University found extensive evidence of a pattern of plagiarism, and we subsequently found a more egregious pattern.

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

We provided the Subject with a copy of our draft report and attachments for comment.<sup>58</sup> In the Subject's responses, he asserts his practice of non-citation is common. Using the "SafeAssign" plagiarism-detection tool,<sup>59</sup> he said he found that his "senior colleagues . . . practice no quotation marks or paraphrasing for common knowledge and common practice . . . OIG can pull up any . . . currently funded PI and find at least one publication that has a high [Safe Assign] matching score."

The results he provided do not support his assertion about his colleagues. The Subject provided us with matching percentages which are not always an accurate predictor of plagiarism. Documents can exhibit a high matching score because they contain text from documents authored by the same person as the author of the document under examination. A review of some of the examples the Subject provided confirm that the high scores did not reflect plagiarism nor do his examples in any way address his lack of proper citation practices.

The Subject's response to our draft report did demonstrate he still does not accept responsibility for not distinguishing others' work from his own. He suggests "NSF and others should review their plagiarism guidelines, and modify them to include the lesser requirements for common practice and common knowledge in engineering/science." We are troubled by the Subject's continuing blatant disregard of proper attribution, as well as his suggestion that NSF should lower its ethical standards. We therefore determined the Subject's response did not provide adequate reason for OIG to change its original determinations and recommendations, as stated above.

<sup>58</sup> 59 60

#### Recommendations

Based on the evidence, OIG recommends NSF:

- Send a letter of reprimand to the Subject informing him that NSF has made a finding of research misconduct<sup>61</sup>
- Debar the Subject for a period of one year from the date of NSF's finding.<sup>62</sup>
- 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 one year of NSF's finding.<sup>63</sup> The instruction should be in an interactive format (e.g., an instructor-led course) and specifically include plagiarism.

For a period of three years after the Subject's debarment:

- Bar the Subject from participating as a peer reviewer, advisor, or consultant for NSF.<sup>64</sup>
- Require that for each document (proposal, report, etc.) to which the Subject contributes for submission to NSF (directly or through an institution),
  - o The Subject submit a contemporaneous certification to the AIGI that the document does not contain plagiarism, falsification, or fabrication. <sup>65</sup>
  - o The Subject submit contemporaneous assurances from the Research Integrity Officer or a responsible official of his employer to the AIGI that the document does not contain plagiarism, falsification, or fabrication.<sup>66</sup>

<sup>&</sup>lt;sup>61</sup> A letter of reprimand is a Group I action (45 C.F.R. § 689.3(a)(1)(i)).

<sup>62</sup> A Group III action 45 C.F.R. 689.3(a)(3).

<sup>&</sup>lt;sup>63</sup> This action is similar to Group I actions 45 C.F.R. 689.3(a)(1).

<sup>64</sup> A Group III action 45 C.F.R. 689.3(a)(3)(ii).

<sup>65</sup> This action is similar to 45 C.F.R. 689.3(a)(1)(iii).

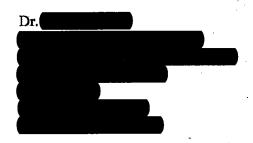
<sup>66</sup> A Group I action 45 C.F.R. 689.3(a)(1)(iii).

#### **NATIONAL SCIENCE FOUNDATION**

4201 WILSON BOULEVARD ARLINGTON, VIRGINIA 22230



#### CERTIFIED MAIL -RETURN RECEIPT REQUESTED



Re: Notice of Research Misconduct Determination and Proposed Debarment

Dear Dr.

As a professor in the at the ("University"), you served as a Principal Investigator ("PI") on eight proposals that were submitted to the National Science Foundation ("NSF"), which contained 509 unique lines of copied text, one figure, and four embedded references plagiarized from 31 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 significant amount of plagiarized material which was found in eight proposals submitted to NSF over the course of almost a decade. In addition, the University concluded as part of its own investigation that several proposals you submitted to both the University and NSF 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 you were aware of proper citation practices as evidenced by your proper use of citation in published articles, your position as Associate Editor for the

and your participation in an responsible conduct of research ("RCR") training program in 2011. Despite this knowledge, you engaged in a pattern of extensive plagiarism in multiple NSF proposals. 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 no impact on the research record; and the fact that there was a pattern of misconduct spanning nearly a decade. I have also considered other relevant circumstances, such as your continued assertions that your actions were not wrong but are instead common practice, and that NSF should lower its ethical standards. 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 four years, I am requiring that you submit certifications that any
  proposals or reports you submit to NSF do not contain plagiarized, falsified, or
  fabricated material.
- For a period of four 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.
- For a period of four years, you are prohibited from participating as a peer reviewer, advisor, or consultant for NSF.

All certifications, assurances, and training documentation, should be submitted in writing to NSF's Office of the Inspector General, Associate Inspector General for Investigations, 4201 Wilson Boulevard, Arlington, Virginia 22230.

#### Debarment

Regulatory Basis for Debarment

Pursuant to 2 CFR § 180.800, debarment may be imposed for:

- (b) Violation of the terms of a public agreement or transaction so serious as to affect the integrity of the agency program, such as
  - (1) A willful failure to perform in accordance with the terms of one or more public agreements or transactions;
  - (3) A willful violation of a statutory or regulatory provision or requirement applicable to a public agreement or transaction; or
- (d) Any other cause of so serious or compelling a nature that it affects your present responsibility.

In any debarment action, the government must establish the cause for debarment by a preponderance of the evidence. 2 CFR § 180.850. In this case, the OIG Investigative Report and the University investigation support a finding that you intentionally committed plagiarism in eight NSF proposals. Thus, your action supports a cause for debarment under 2 CFR §§ 180.800(b) and (d).

#### Length of Debarment

Debarment must be for a period commensurate with the seriousness of the causes upon which an individual's debarment is based. 2 CFR § 180.865. Having considered the seriousness of your actions, as well as the relevant aggravating and mitigating factors set forth in 2 CFR § 180.860, we are proposing your debarment for one year.

## Appeal Procedures for finding of Research Misconduct and Procedures Governing Proposed Debarment

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.

Procedures Governing Proposed Debarment

The provisions of 2 CFR Sections 180.800 through 180.885 govern debarment procedures and decision-making. Under our regulations, you have 30 days after receipt of this notice to submit, in person or in writing, or through a representative, information and argument in opposition to this debarment. 2 CFR § 180.820. Comments submitted within the 30-day period will receive full consideration and may lead to a revision of the recommended disposition. If NSF does not receive a response to this notice within the 30-day period, this debarment will become final. Any response should be addressed to General Counsel, National Science Foundation, Office of the General Counsel, 4201 Wilson Boulevard, Room 1265, Arlington, Virginia 22230. For your information, I am attaching a copy of the Foundation's regulations on non-procurement debarment and FAR Subpart 9.4.

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

Sincerely,

Cora B. Marrett Deputy Director

Cora B. Marrett

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

#### NATIONAL SCIENCE FOUNDATION 4201 WILSON BOULEVARD ARLINGTON, VIRGINIA 22230





#### CERTIFIED MAIL -RETURN RECEIPT REQUESTED



Re: Notice of Debarment

Dear Dr.

On the National Science Foundation ("NSF") issued you a Notice of Proposed Debarment and Notice of Research Misconduct Determination ("Debarment Notice") in which NSF proposed to debar you directly or indirectly from obtaining the benefits of federal grants for a period of one year.

As reflected in the Debarment Notice, NSF proposed to debar you because eight proposals that you submitted to NSF as the Principal Investigator (PI) contained 509 unique lines of copied text, one figure, and four embedded references plagiarized from 31 sources.

In the Debarment Notice, NSF provided you with thirty days to respond to the proposed debarment. The period for submitting a response to NSF has elapsed, and NSF has not received a response from you. Accordingly, you are debarred until

Debarment precludes you from receiving federal financial and non-financial assistance and benefits under non-procurement federal programs and activities unless an agency head or authorized designee makes a determination to grant an exception in accordance with 2 CFR 180.135. Non-procurement transactions include grants, cooperative agreements, scholarships, fellowships, contracts of assistance, loans, loan guarantees, subsidies, insurance, payments for specified use, and donation agreements.

In addition, you are prohibited from receiving federal contracts or approved subcontracts under the Federal Acquisition Regulations at 48 CFR subpart 9.4 for the period of this debarment. 2 CFR 180.925. During the debarment period, you may not have supervisory responsibility, primary management, substantive control over, or critical influence on a grant, contract, or cooperative agreement with any agency of the Executive Branch of the Federal Government.

Should you have any questions about the foregoing, please contact General Counsel, at (703) 292-

Sincerely,

Richard O. Buckius

Chief Operating Officer

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