



NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL
OFFICE OF INVESTIGATIONS

CLOSEOUT MEMORANDUM

Case Number: A10080061

Page 1 of 1

OIG conducted an inquiry into an allegation that the Subject¹ submitted two NSF proposals containing copied text. The Subject's response to our inquiry dispelled the allegation related to one of the proposals; however, there was sufficient evidence to proceed with an investigation focused on the other proposal. Because the proposal was submitted by a small business, we conducted our own investigation.

We concluded, based on a preponderance of the evidence, that the Subject recklessly committed plagiarism, deemed a significant departure from accepted practices. We recommended actions to be taken to protect the federal interest and the Deputy Director concurred with our recommendations.

This memo, the attached Report of Investigation, and the Deputy Director's letter constitute the case closeout. Accordingly, this case is closed.

¹ [REDACTED]

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230



OFFICE OF THE
DIRECTOR

AUG 24 2011

CERTIFIED MAIL --RETURN RECEIPT REQUESTED

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Re: Notice of Research Misconduct Determination

Dear Dr. [REDACTED]

In 2007, you submitted a proposal to the National Science Foundation ("NSF") entitled, [REDACTED] As document in the attached Investigative Report prepared by NSF's Office of Inspector General ("OIG"), this proposal 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 proposal contained verbatim and paraphrased text copied from numerous source documents. By submitting a proposal 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 professional 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 not part of a pattern of plagiarism, and had a limited 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 August 29, 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; and
- (2) Prior to submitting additional proposals to NSF, but no later than August 29, 2012, you must certify to the OIG that you have taken a course on ethics, which includes discussion on citation practices.

The certifications 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 [REDACTED], Assistant General Counsel, at (703) 292-8060.

Sincerely,

A handwritten signature in cursive script, appearing to read "Wanda Ward".

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 A10080061

April 14, 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: OIG identified 6 sources from which approximately 97 lines were copied into one awarded NSF proposal.

OIG**Investigation:**

OIG concluded, based on a preponderance of the evidence, that the Subject recklessly committed plagiarism, and that the plagiarism constituted a significant departure from accepted practices of his professional community.

OIG**Assessment:**

- **The Act:** The Subject plagiarized 97 lines from six sources into one awarded NSF proposal.
- **Intent:** The Subject acted recklessly.
- **Standard of Proof:** A preponderance of evidence supports the conclusion that the Subject committed plagiarism.
- **Significant Departure:** The Subject's plagiarism represents a significant departure from accepted practices.
- **Pattern:** No substantive pattern was identified.

OIG**Recommends:**

- Make a finding of research misconduct against the Subject.
- Send the Subject a letter of reprimand.
- Require certifications from the Subject for a period of 2 years.
- Require certification of attending an ethics class within 1 year.

OIG's Inquiry

OIG conducted an inquiry into an allegation that the Subject¹ submitted two NSF proposals (Proposal 1² and Proposal 2³) containing copied material. Our analysis identified 129 lines and two figures copied from eight sources in Proposal 1, and a small amount of text copied from four additional sources⁴ in Proposal 2.

OIG contacted the Subject about the allegation.⁵ In his response,⁶ the Subject, via his attorney, said he "takes full responsibility for his work and any errors that were made."⁷ He explained the copied material was either: 1) authored by and provided to him by collaborators, 2) referenced in the works cited section but not near the text, or 3) used without any citation.⁸

The Subject concluded by explaining that his very small, two-person company⁹ "previously had no system to review or critique his proposals," but said he "will take steps to ensure that no such future errors occur."¹⁰ Specifically, he said:

- The company¹¹ will comply with NSF's implementation of the America COMPETES Act "by obtaining training in the responsible and ethical conduct of research;"
- He will "obtain training in proper citation and attribution;"
- He will submit future proposals "to research colleagues for review and criticism prior to NSF submission;" and
- He will "acquire anti-plagiarism software, and will review all future proposals to identify inadvertently copied text."¹²

We reviewed the Subject's response and concluded it dispelled the allegations regarding three sources. Specifically, we concurred with the Subject's contention, confirmed by documentary evidence, that the Subject's collaborators authored Sources C and D, and allowed the Subject to use text and images from Sources C and D within Proposal 1.¹³ We also concurred that Source L was authored after the Subject submitted Proposal 2¹⁴ and we could not identify another source containing identical text. As such, we removed these three sources from our analysis. We

¹ [REDACTED]
² Tab 1: [REDACTED]
 (Awarded) PI: Subject. The Subject submitted Proposal 1 under [REDACTED] (hereafter abbreviated [REDACTED]). The [REDACTED] grant was effective [REDACTED] through [REDACTED].
³ Tab 2: [REDACTED] (Declined) PI: Subject. The Subject submitted Proposal 2 under [REDACTED] (hereafter abbreviated [REDACTED]).
⁴ Tab 3: Alleged Source Documents A-L.
⁵ Tab 4.
⁶ Tab 5.
⁷ Tab 5, pg 1.
⁸ Tab 5, pg 1.
⁹ [REDACTED]
¹⁰ Tab 5, pg 4.
¹¹ [REDACTED]
¹² Tab 5, pg 4-5.
¹³ Tab 5, pg 2.
¹⁴ Tab 5, pg 4.

concluded that Proposal 2 contained *de minimis* plagiarism and could be removed from further review, but that there was sufficient evidence to proceed with an investigation focused on Proposal 1.

The following chart summarizes the allegedly copied material in Proposal 1:

Source	Proposal 1 (Awarded)
A (article) ¹⁵	62 lines
B (article)	4 lines
E (web note re: product)	18 lines
F (article)	2 lines
G (webpage)	3 lines
H (webpage)	8 lines
Total (UNIQUE)	97 lines

OIG Investigation

Given the size and nature of the small business that submitted the proposal, OIG conducted its own investigation rather than referring the matter to the institution. OIG began by re-examining the proposal. We noted that the copied text was limited to background matter, product descriptions, commercial potential, was referenced in the Works Cited section, or, as with the most extensive copied text,¹⁶ contained an embedded citation located near a portion of the inadequately cited text.

We examined three other NSF proposals¹⁷ the Subject authored to determine whether the action constituted part of a larger pattern. Examination of these documents identified no substantive plagiarism.

We informed the Subject of our investigation and asked him to respond to additional questions.¹⁸ In his response,¹⁹ the Subject reiterated: "I take full responsibility for my work and any errors that were made."²⁰ He said that while he sent proposal drafts to others for editing, review, and comment, he "was responsible for proposal integration and editing of the final drafts and submission" ²¹

¹⁵ Text annotated A1 and A2 was used two times within Proposal 1, but is counted once to ensure unique line count.

¹⁶ Section annotated as A3.

¹⁷ [REDACTED] (Declined);

(Declined); and [REDACTED]

[REDACTED] (Declined). The Subject has submitted a total of [REDACTED] NSF proposals from [REDACTED]

¹⁸ Tab 6.

¹⁹ Tab 7.

²⁰ Tab 7, pg 1.

²¹ Tab 7, pg 11.

The Subject said, that prior to receiving our inquiry letter,

I presumed that the peer review and academic writing style standards would be more relaxed [for SBIR proposals] as not as critical as what is required in the more formal academic and large company grant process.²²

He has "not taken a course on grant writing and do[es] not work under a documented writing style,"²³ but rather, developed his proposal writing style "over a 20 year period of 'on the job' training."²⁴ He added: "I depend on my collaborators and use and adopt their proposal and writing style(s) as I incorporate their inputs, edits and comments into our proposals."²⁵

The Subject said he had "never been instructed in the definition of plagiarism as set forth by NSF, other grantor agencies or academic institutions."²⁶ He "was never required to take a course on research ethics and [has] also never been provided the opportunity to take such a course."²⁷ As such, he relied on advice, such as

... quoting from referred journals as background information could be done as long as the work was referenced in the bibliography or reference sections of the proposal.²⁸ [and]

... proposals would be only reviewed by government scientist [sic] for the technical merit on whether the proposed concept could achieve the deliverables required from the solicitation and whether the concept could possibly be a commercially viable product.²⁹

Consistent with our request,³⁰ the Subject provided our office with a copy of his current CV. His CV indicated he was educated entirely in the United States.³¹ It further indicated that all of his employment, including a position as an adjunct assistant professor,³² was in the United States.³³ Similarly, it stated the Subject has served as co-author and/or primary author of 12 publications (including his dissertation), seven patents, and eight presentations.³⁴ These writings were all done in English-language publications and the presentations were all given in the United States.

²² Tab 7, pg 11.

²³ Tab 7, pg 12.

²⁴ Tab 7, pg 12.

²⁵ Tab 7, pg 12.

²⁶ Tab 7, pg 11.

²⁷ Tab 7, pg 11.

²⁸ Tab 7, pg 11.

²⁹ Tab 7, pg 11 and 12.

³⁰ Tab 6.

³¹ Tab 7, pg 4.

³² [REDACTED]

³³ Tab 7, pg 1-4.

³⁴ Tab 7, pg 4-7.

To determine the standards of the Subject's research community, we first examined the standards of his employers immediately prior to his current small business affiliation.³⁵ Two previous employers were research units affiliated with a university.³⁶ Though their respective websites do not include policies regarding research misconduct, the university with which they are affiliated does. The university's current research misconduct policy, issued less than one year into the Subject's three and a half year employment, defines misconduct in science as fabrication, falsification, or plagiarism.³⁷

Second, although the Subject's most recent publications were from 1996, we reviewed the standards of the journals in which the Subject has published. One journal's current Editorial Policy³⁸ stated simply: "Authors are expected to prepare their manuscripts according to high ethical standards."³⁹ The publication guidelines from a professional society⁴⁰ at whose conferences the Subject presented and subsequently published currently state:

Plagiarism constitutes unethical scientific behavior and is never acceptable. Proper acknowledgment of the work of others used in a research project must always be given. Further, it is the obligation of each author to provide prompt retractions or corrections of errors in published works.⁴¹

Finally, we reviewed the standards of another professional society that recognized the Subject for exceptional scientific/commercial innovation in [REDACTED].⁴² The society's current ethical and professional guidelines are extensive, including information on "Proper Use of Sources."⁴³ The society currently also provides comprehensive guidance regarding plagiarism:

Plagiarism is not acceptable in [the society's] journals. [The society's] journals adhere to the U.S. National Science Foundation definition of plagiarism as "the appropriation of another person's ideas, processes, results, or words without giving appropriate credit" (45 Code of Federal Regulations, Section 689.1). Authors should not engage in plagiarism - verbatim or near-verbatim copying, or very close paraphrasing, of text or results from another's work.⁴⁴

³⁵ We did not review the standards of the Subject's educational institutions - his Bachelor's Degree was granted in [REDACTED] and his Ph.D. in [REDACTED] - as any standards currently available were most likely not those applicable during the Subject's enrollment.

³⁶ [REDACTED] both affiliated with the [REDACTED]

³⁷ [REDACTED] Though the university did have a misconduct policy in its previous handbook, the text of that section is no longer available online for review.

³⁸ [REDACTED]

³⁹ [REDACTED]

⁴⁰ [REDACTED]

⁴¹ [REDACTED] Approved January 30, 2004.

⁴² [REDACTED]

⁴³ [REDACTED]

⁴⁴ [REDACTED]

Date stamped August 2010.

It is unclear whether the guidelines currently presented online by the journals and professional societies were in place at the time the Subject was most affiliated with the respective entity. Nonetheless, given the Subject's academic background⁴⁵ and the field in which he currently conducts research, the guidelines presented closely mirror those under which the Subject should be knowledgeable.⁴⁶

The Subject addressed intent in the conclusion to his response. He stated: "The errors made were unintentional and I will immediately implement the remedial measures discussed in our prior letter."⁴⁷

To conclude our investigation, we asked for information regarding the small businesses. The Subject explained:

[The two companies]⁴⁸ are two separate companies that were established to serve two different types of Technology areas. [Company 1]⁴⁹ was established as a biotech company to perform research and develop genetic/genomic based technologies. [Company 2]⁵⁰ was established to do research that centers around medical devices and to serve and collaborate with other small businesses and entrepreneurs who are interested in licensing their technology to us to further develop their products or invest in new product lines.⁵¹

The Subject said he is the majority owner and CEO of both companies.⁵² One company⁵³ has two other shareholders; the other⁵⁴ has only one other shareholder⁵⁵ and has been inactive for most of its existence.⁵⁶ Both companies share the same single room office.⁵⁷

The Subject said both companies participate exclusively in the SBIR program.⁵⁸ A list of all the proposals the businesses submitted to any federal agency in the last five years indicated that they submitted 62 proposals.⁵⁹ The Subject's CV indicates he received 32 contract awards,

⁴⁵ His Master's and Ph.D. are in the field of [REDACTED]

⁴⁶ Neither the Subject's CV nor Biographical Sketch contains information about the Subject's professional society membership.

⁴⁷ Tab 7, pg 13.

⁴⁸ [REDACTED] and [REDACTED]

⁴⁹ [REDACTED]

⁵⁰ [REDACTED]

⁵¹ Tab 7, pg 12.

⁵² Tab 7, pg 12.

⁵³ [REDACTED]

⁵⁴ [REDACTED]

⁵⁵ Tab 7, pg 12.

⁵⁶ Tab 7, pg 12.

⁵⁷ Tab 7, pg 12. The address is [REDACTED] The Subject explained that [REDACTED] does not maintain laboratory space, as it downsized its facilities in [REDACTED]

⁵⁸ Tab 7, pg 11.

⁵⁹ Tab 7, pg 15.

of which only three were non-SBIR.⁶⁰ No duplicate funding was identified in the list of awarded proposals. A review of the Subject's history in the Small Business Administration's Tech-Net database confirmed the Subject has not received duplicative funding.

OIG's Assessment

A finding of research misconduct by NSF 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 proved by a preponderance of the evidence.⁶¹

The Acts

Our review found the Subject plagiarized 97 lines, from six sources into one funded proposal. OIG concludes the Subject's actions constitute plagiarism, as described in NSF's definition. 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.

OIG found the Subject's actions constituted a significant departure from accepted practices of his professional community.

Intent

We conclude the Subject acted recklessly in plagiarizing material in Proposal 1. First, he did not contest he included material from the sources and acknowledged that in certain cases he did erroneously include material without any citation. Second, the majority of the copied text⁶² did include a citation in the Works Cited section of his proposal, and was consistent with the (incorrect) guidance he said he received from colleagues. Third, the Subject, who operates within a very small business rather than academic context, lacked the oversight and guidance needed to ensure the integrity of his proposals, a flaw he now recognizes and is taking measures to correct. Fourth, the Subject developed his grant-writing techniques in an *ad hoc* manner by observing and copying the practices of his collaborators, with no way of knowing the sufficiency or appropriateness of the collaborators' practices, and no apparent concern about that lack of knowledge. We therefore conclude the subject's actions were reckless.

Standard of Proof

OIG concludes that the Subject's actions and intent were proven based on a preponderance of the evidence.

⁶⁰ Tab 7, pg 7-10.

⁶¹ 45 C.F.R. §689.2(c).

⁶² Sources A and B.

OIG concludes that the Subject, by a preponderance of the evidence, recklessly plagiarized, thereby committing an act of research misconduct.⁶³

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.⁶⁴

Seriousness

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.

Degree to which Action was Reckless

OIG finds that the Subject acted recklessly. A reasonable person would be expected to know that using verbatim text without demarcation was not acceptable. We believe the Subject's lack of appreciation for this straightforward rule went beyond mere carelessness in light of his lack of training, adequate guidance, and institutional oversight over a period of many years, as well as his acknowledged dependence on the unvalidated practices of others. We therefore conclude that his actions were distinctly reckless.

Pattern

We did not identify a pattern of plagiarism.

Recommendation

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;⁶⁵

⁶³ 45 C.F.R. part 689.

⁶⁴ 45 C.F.R. § 689.3(b).

⁶⁵ A letter of reprimand is a Group I action (45 C.F.R. §689.3(a)(1)(i)).

- require the Subject to certify to OIG's Assistant Inspector General for Investigations (AIGI) that proposals or reports he submits to NSF do not contain plagiarized material for 2 years;⁶⁶ and
- require the Subject to complete an ethics course, which includes discussion on citation practices, within 1 year and provide certification of its completion to OIG.⁶⁷

⁶⁶ Certification by an individual is a final action that is comparable to the final actions listed in 45 C.F.R. §689.3(a).

⁶⁷ Completing an ethics course is a final action that is comparable to the final actions listed in 45 C.F.R. §689.3(a).