

# Investigations

## Civil and Criminal Investigations

We investigate violations of federal civil and criminal statutes by applicants for and recipients of NSF funds, as well as NSF employees and contractors. When we find substantial evidence of wrongdoing, we refer cases to the Department of Justice for prosecution and recommend administrative action of NSF in appropriate circumstances.

Our investigations yielded significant results during this reporting period including a company and CEO paying over \$900,000 for False Claims Act violations and the return or forfeiture of \$1.9 million by a public broadcasting company.

### Joint Investigation Results in the Return or Forfeiture of \$1.9 Million

We conducted a joint investigation with the OIGs of the National Endowment for the Arts (NEA) and the National Endowment for the Humanities (NEH), of a New York public broadcasting company for allegedly submitting false claims in violation of the civil False Claims Act. In response to our subpoena for records, the company was unable to provide sufficient documentation for the \$1.5 million NSF grant because it combined NSF funds with non-NSF funds in its accounting system. The documents that the company did provide showed expenses for gifts for the talent, alcohol, and costs unrelated to the program that were charged to the NSF award. Based on our concerns with this grant, we reviewed the general ledgers for four other seasons of the same educational program and determined that the company had been requesting reimbursements in excess of its actual expenses. For one award, the difference totaled \$476,000. NEA OIG and NEH OIG conducted similar reviews of their awards and found similar issues to the ones we identified.

The broadcasting company had not discretely accounted for its federal grant funds; had not segregated unallowable expenses from the project accounts; and drew down funds in excess of expenditures. We referred the matter to the U.S. Attorney's Office, Southern District of New York. A civil settlement was reached that resulted in a five-year compliance plan, the return of \$950,000 and the forfeiture and deobligation of more than \$1 million associated with awards from each of the three agencies.

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## **Company and CEO Pay Over \$900,000 for False Claims Act Violation**

Our investigation, initiated pursuant to a whistleblower lawsuit, disclosed that the former CEO of a Maryland based biotechnology company caused material false statements to be made regarding experiments conducted under an SBIR Phase I award. NSF awarded this company a Phase I SBIR award in 2005. In 2006, NSF awarded the company a Phase II award of \$467,000 based on the company's false claims in its Phase II proposal. The investigation also revealed several material false statements the company submitted in its annual project reports for the Phase II award.

The false statements greatly exaggerated the success of the experiments performed under both awards. For example, the Phase I report stated that six full-scale experimental runs of the process under investigation produced high-quality results that were "robust," "replicated," and "validated," when in fact the runs were all small-scale, none was repeated, and the results varied widely. Similarly, an interim Phase II report stated that a "critical" project objective was "almost completed"—but the subsequent final report, submitted by the company after learning of our investigation, admitted that that objective "was not accomplished to our satisfaction."

The company entered into a settlement agreement which required the company and its former CEO to each pay back half of \$934,000 to the U.S. Government. As part of the settlement agreement, the company agreed to be bound by a five-year compliance plan monitored by our office, and the former CEO voluntarily excluded himself from receiving federal funds for five years.

## **Former University Employee Convicted for Purchase Card Abuse**

Our investigation disclosed that a former business manager at an Arizona university charged nearly \$17,000 for personal items, such as gift cards and a video game, to an NSF award. We also identified nearly \$18,000 of additional charges on her purchase card which the university could not confirm were properly charged to the NSF award. The investigation also revealed that she had charged personal purchases to other federal and state grants.

The former manager pled guilty to one count of felony theft and was sentenced to three years probation and ordered to pay \$75,000 restitution to the university. The university reimbursed \$51,688 to NSF and made significant changes to its policies and procedures for purchase card use to strengthen oversight of NSF funds in the future.

## **NSF Terminates a Graduate Research Fellowship and Recovers \$69,000**

Our investigation revealed that an Alabama student who was awarded a graduate research fellowship had intentionally made a false certification on her application when she stated that she was not delinquent on any federal debt. After she began receiving fellowship funds, she disclosed to NSF that she was

in fact delinquent on student loans and she had knowingly misrepresented her status on her application. NSF terminated the fellowship award and recovered approximately \$69,000.

We determined that, although the student made the false certifications intentionally, it was unclear whether the certification was still legally required or considered by NSF to be an important precondition to the award of fellowships. We recommended that NSF determine whether the certification was still required by law, regulation, or policy. NSF concluded that the certification was no longer legally required; amended the certification page accordingly, and moved the certification page to the front of the fellowship application so that applicants are aware of all requirements before applying.

### **PI Receives Funding from Three Federal Agencies for the Same Project**

A PI at a Florida university received funding from three federal agencies for the same proposal. The PI was originally accused of plagiarizing in a proposal submitted to NSF and a progress report submitted to the Air Force Office of Scientific Research. Our joint investigation with the Air Force determined that the PI first submitted a proposal, which included plagiarized text and figures, through his wife's small business to the Air Force's Small Business Technology Transfer program.

The Air Force notified the PI that his proposal was approved for funding, and he then submitted a proposal for the same project through his university to NSF's Small Grants for Exploratory Research program, without disclosing to NSF that the Air Force had already approved funding for the project. NSF approved the project for funding, and the PI then submitted the same proposal through his wife's business to DARPA, without disclosing either the Air Force or NSF award. DARPA also approved funding for the project. All three proposals contained the same significant plagiarism. The Air Force made a finding of plagiarism and took actions against the PI.

The United States Attorney's Office declined to prosecute the duplicative funding, in part because of the small amount of NSF funding the PI had spent before we learned of his scheme and the availability of a strong administrative remedy. Accordingly, we recommended that NSF debar the PI and his wife's company for three years, and NSF's decision is pending.

### **Three Universities Return Mischarged Funds to NSF**

Three universities returned funds that had been mischarged to their NSF awards. An Ohio university reimbursed \$85,511 to NSF and instituted new policies and procedures to strengthen financial administration of NSF awards in the future. The university had drawn down excessive funds, charged costs incurred after the award's expiration date, and transferred costs to the award without supporting documentation. An Oregon university repaid \$54,928 to NSF for unsupported and ineligible costs charged to its NSF award.

A New York university returned \$19,736 to NSF. After a PI at the university completed activities set out in his NSF proposal, he requested NSF permission to spend the remaining funds on other activities. However, he did not submit a proposed budget to NSF as directed and spent the remaining funds on costs that were unallowable and/or lacked supporting documentation.

The university returned the funds to NSF and removed the PI from his position as an academic center director. The university also updated its no-cost extension policy to require PIs to submit a signed request form to the university before obtaining an extension from NSF. In addition, we sent the PI a letter admonishing him to adhere to applicable grant conditions and to reply promptly to requests from NSF program officers.

### **Father Misuses NSF Logo to Fake Daughter's Science Award**

A news article reported that a 4th grader won a national science fair hosted by NSF. The story was accompanied by a photo of the student, her father, and her principal. The student was holding a trophy, a medal, and a plaque allegedly from NSF. The story also reported that the girl received a letter of congratulation from NSF stating she had won an all-expenses-paid trip to Space Camp. We examined the letter which contained the NSF logo and had purportedly been signed by a NSF program officer.

NSF does not host a national science fair. When we interviewed the father, he admitted that he created the fake NSF letter and ordered the trophy, medal, and plaque. He said he never intended the publicity, and he subsequently sent an email to the newspaper admitting to the "hoax," which the newspaper reported. The case was declined for prosecution, and we concluded that no further action was necessary.

### **PI Charges Personal Purchases to NSF Awards**

A PI at a Utah university charged nearly \$9,000 in personal purchases to two NSF awards, private foundation grants, and university overhead accounts. The university terminated the PI and refunded the inappropriate charges. This PI is currently employed at a Massachusetts university. In order to further protect the interests of the public and NSF, we recommended that NSF debar him for one year. NSF's decision is pending.

### **NSF Acts on Debarment Recommendations**

Based on our recommendations, NSF debarred two individuals for fraudulent actions:

- A former accounts payable clerk at a Wisconsin college pled guilty to a felony theft charge and was ordered to pay \$22,000 of restitution.<sup>1</sup> NSF agreed with our recommendation and debarred the employee for three years.

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<sup>1</sup> March 2010 Semiannual Report, p.26.

- An assistant director for an NSF-funded institute at a North Carolina university charged personal expenses to an NSF award and was subsequently terminated. The assistant director's responsibilities included management, oversight and easy access to millions of dollars of federal award funds. We recommended that NSF debar this individual for one year. NSF agreed with our recommendation and debarred her for one year.

## Research Misconduct Investigations

Research misconduct damages the research enterprise, is a misuse of public funds, and undermines the trust in government-funded research. For these reasons, pursuing allegations of research misconduct by NSF-funded researchers continues to be a focus of our investigative work. In recent years, we have seen a significant rise in the number of substantive allegations of research misconduct associated with NSF proposals and awards. It is imperative to the integrity of research funded with taxpayer dollars that NSF-funded researchers carry out their projects with the highest ethical standards.

During this reporting period, we referred six cases to NSF which are summarized below. NSF's decisions are pending in all six cases.

### **Student Fabricates Figures in Research Publication and Ph.D Dissertation**

A doctoral student at a North Carolina university fabricated a figure in a research publication that cited NSF support. The university investigation determined that the student used image manipulation software to create an image of an electrophoretic gel with bands placed at the appropriate lane positions. The fabricated image appeared in a publication that was later retracted. The investigation also revealed that multiple improperly created or manipulated images appeared in the student's Ph.D. dissertation. After making a finding of misconduct, the university initiated action to rescind the student's Ph.D. degree.

We concurred with the university's conclusions and recommended that NSF: make a finding of research misconduct; send a letter of reprimand; debar the individual for three years; require certifications and assurances for three years after debarment ends; prohibit service as a reviewer of NSF proposals for six years; and require completion of a course in ethics training within one year of the finding of research misconduct. NSF's decision is pending.

### **PI Violates Merit Review and Plagiarizes in Three NSF Proposals**

A PI who is an associate professor at a California university plagiarized text and references into three declined proposals he submitted to NSF. One of the sources was an NSF proposal he received for confidential merit review. The university concluded that the PI's actions did not constitute plagiarism, but took actions against him including: placing the investigation report in his personnel file; requiring him to develop a chapter on plagiarism for the university's Undergraduate Student Booklet; and prohibiting him from receiving grants for approximately one year.

We did not concur with the university's assessment and initiated our own investigation. We concluded that the PI knowingly plagiarized and his actions were a significant departure from accepted practices. We recommended that NSF: make a finding of research misconduct; send a letter of reprimand; debar him for one year; require certifications and assurances for three years after the debarment period ends; prohibit him from serving as a merit reviewer for three years; and require certification of attending an ethics class within one year. NSF's decision is pending.

### **PI Submits Three Proposals to NSF Containing Substantive Plagiarism**

A PI, who was an assistant professor at a Virginia university, plagiarized text and references from eighteen sources into three proposals he submitted to NSF. The PI's university concluded that the PI recklessly committed plagiarism, and it placed a letter of reprimand in the PI's personnel file and authorized his department chair to review his proposals for five years.

We concurred with the university's assessment and recommended that NSF: make a finding of research misconduct; send a letter of reprimand; require certifications and assurances for three years; and require certification of attending an ethics class within one year. NSF's decision is pending.

### **Professor Plagiarizes from Research Colleague into NSF Proposal**

A professor at a North Carolina university copied text into her NSF proposal from several sources, including a publication of a research colleague with whom she regularly shared preprints and publication copies. The professor contended that copying extended sections of text without the use of quotation marks was accepted practice in her research community, but her university disagreed, making a finding of research misconduct and requiring training in the responsible conduct of research.

We concurred with the university's assessment and recommended that NSF: make a finding of research misconduct; require certifications and assurances for three years; prohibit service as a reviewer for three years; and require the individual to complete a course in responsible conduct of research within one year of the finding of research misconduct. NSF's decision is pending.

### **PI Partially Blames Students for Plagiarism in Two NSF Proposals**

A PI who was an assistant professor at a California university plagiarized text and figures into two proposals he submitted to NSF. The PI accepted responsibility for some of the plagiarized text but also claimed he did not adequately review background materials provided to him by his students. The PI's university concluded the PI was solely responsible and his actions constituted intentional plagiarism. The university made a finding of research misconduct and placed a letter of reprimand into the subject's personnel file.

We concurred with the university's assessment and recommended NSF: make a finding of research misconduct; send a letter of reprimand; require certifications and assurances; and require certification of attending an ethics class within one year. NSF's decision is pending.

### **PI Plagiarizes into Three NSF Proposals**

A PI who was a professor at a Mississippi university plagiarized substantive amounts of text from two dozen sources into three proposals he submitted to NSF. The PI's university concluded that the PI committed plagiarism, which was a significant departure from accepted practices. It required the PI to take courses in scientific writing and research ethics and to hire a professional editor to review his writing for at least one year. It also required the PI's academic department to mandate biannual certifications for scientific ethics.

The university's assessment of the subject's level of intent was unclear. Based on our analysis of the evidence, we concluded the PI's actions were knowing and they constituted a significant departure from accepted practices. We recommended that NSF: make a finding of research misconduct; send a letter of reprimand; require certifications and assurances for one year, and require certification of attending an ethics class within one year. NSF's decision is pending.

### **Actions by NSF Management on Previously Reported Research Misconduct Investigations**

NSF has taken administrative action to address our recommendations on five research misconduct cases reported in our March 2010 report. In each case, NSF made a finding of research misconduct, issued a letter of reprimand, and required completion of a course on research ethics. NSF also took additional significant actions in response to our recommendations as summarized below.

- NSF required a university professor who plagiarized text, including text from a confidential NSF proposal, into multiple proposals, to provide certifications and assurances for three years and prohibited the professor from serving as a merit reviewer for five years.<sup>2</sup>
- A professor who plagiarized into several of his proposals was required by NSF to provide certifications and assurances for three years.<sup>3</sup>
- NSF required a university professor who plagiarized text from web sources into his NSF proposal to provide certifications for two years.<sup>4</sup>
- A professor at a university who plagiarized into his proposal and blamed his students was required by NSF to provide certifications and assurances for two years.<sup>5</sup>

<sup>2</sup> March 2010 Semiannual Report, p.30.

<sup>3</sup> March 2010 Semiannual Report, pp.29-30.

<sup>4</sup> March 2010 Semiannual Report, p.31.

<sup>5</sup> March 2010 Semiannual Report, p.31.

- NSF required a university professor who plagiarized text into a proposal, which she subsequently withdrew, to provide one year of certifications and prohibited her from serving as a merit reviewer for one year.<sup>6</sup>
- A PI at a small business who plagiarized text into multiple proposals was required by NSF to provide certifications for one year.<sup>7</sup>

## Management Implication Reports

### Inadequate Oversight Plans for Projects Involving International Subawardees

We initiated an investigative review of the proposals submitted to a program providing support to international participants through subawards. The international collaboration program required Oversight Plans for the lead institution to ensure subawardee compliance with regulations related to financial accountability, biological oversight, Bioterrorism Act, and responsible conduct of research (RCR).

We reviewed half of the 168 proposals submitted under the program, and all of the 15 awarded proposals. We found that the proposals with foreign subawardees had incomplete and/or rudimentary Oversight Plans that did not demonstrate collaboration between the U.S. institution awardee and foreign subawardee in writing the Oversight Plans. We found only one of the fifteen proposals selected for award had submitted an Oversight Plan that substantively addressed all of the relevant criteria.

After selecting the fifteen proposals that would be awarded, the NSF program officers requested information from the PIs for those proposals, including expanded information on the Oversight Plans. While most of the PIs expanded on the information provided in the submitted proposal's Oversight Plan, we found only two of the fifteen made substantive changes.

We recommended that NSF require U.S. institutions to develop Oversight Plans in conjunction with international collaborators, ensure heightened awareness for RCR training and research misconduct reporting, and develop more detailed guidance for Oversight Plans for future international cooperative awards. NSF's response is pending.

### Review of Travel Expenditures by Temporary Program Staff

We reviewed the use of Independent Research/Development (IR/D) travel by temporary NSF program staff appointed under the Intergovernmental Personnel Act, Visiting Scientists, Engineers, and Educators and permanent staff. IR/D provides an important benefit to NSF staff as it provides travel funds for participation in research and for scientific conferences. IR/D participants must

<sup>6</sup> March 2010 Semiannual Report, pp.31-32.

<sup>7</sup> March 2010 Semiannual Report, p.29.

submit IR/D plans containing information specified in NSF's Personnel Manual, including proposed starting and ending dates as well as expected dates or frequency of specific IR/D activities and itemized NSF costs, identifying their purposes, type of funding, and any other funding arrangements. This information is required to ensure approved IR/D plans are consistent with the actual IR/D travel.

We found that some participants used IR/D funds for trips and conferences that were not referenced in the plans, took more trips or longer trips than proposed, failed to provide detail on conference travel, used IR/D funds for activities not related to the IR/D plan, and spent more on travel than proposed. We also determined that there is no centralized means to review IR/D plans or budgets, and therefore no convenient means to compare actual expenditures to budgets.

To ensure that funds are appropriately expended and to improve the efficiency and oversight of the IR/D program, we recommended that NSF examine all IR/D plans and associated travel records for the past 12 months to determine if the travel was IR/D related, within the scope of the plan, and whether the actual travel costs are consistent with what was proposed. NSF's response is pending.

In addition, we concluded that the issues we identified during our review raised significant internal control concerns with respect to training, financial control, and oversight involving the IR/D program. Accordingly, we referred the issues discussed above to the Office of Audit for further work.

### **Follow-Up Review of Awards for Research Involving Human Subjects**

In 2005, we reviewed compliance with the requirements for human subjects research by awards from an NSF program that makes many such awards.<sup>8</sup> We found that many awards lacked the required information on the proposal cover sheet concerning human subjects research, had incomplete internal NSF proposal processing forms that did not mark research as involving human subjects, and some required institutional approvals were not filed until after the award date. NSF took numerous remedial actions in response to our recommendations.

In this reporting period we reviewed awards from the same program that involved human subjects research and determined that significant improvements have been made. We noted several administrative matters that can be easily corrected, such as awardees' failure to include all necessary information on proposal cover sheets.

We also concluded that the current system of reporting changes to human subjects work in project reports does not adequately identify awards as using human subjects. To ensure the protection of any individuals that take part in NSF-sponsored research, we recommended that NSF ensure proposal cover

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<sup>8</sup> March 2006 Semiannual Report, pp.35-36.

sheets are properly and fully completed, and modify the reporting requirements in project reports. NSF agreed with our recommendations and stated that it would strengthen language in the program solicitation regarding cover sheet requirements and its annual report guidelines for project report requirements.

### **Office of Investigations Operations in Compliance with CIGIE Guidelines**

An external peer review of the Office of Investigations (OI) is conducted every three years by another Office of Inspector General. In addition, OI conducts an internal peer review of its operations. During the last six months, an internal peer review concluded that OI operations were consistent with CIGIE guidelines for investigations as well as those for Offices of Inspectors General.