CLOSEOUT FOR M-91020010

On February 25, 1991, [redacted] informed OIG of allegations of misconduct in science brought to him by a panelist, the complainant, [redacted], in connection with NSF renewal proposal [redacted] The subjects, [redacted], and [redacted] CoPIs on this proposal. It was alleged that the subjects proposed experiments in this NSF proposal that had already been done. It was also alleged that with past NSF supported work the subjects: a) published repetitious papers; b) provided limited credit for the work of others in their published papers; and c) falsified data.

OIG reviewed relevant proposals, reviewers' comments, complainant's remarks, and program officer's notes. OIG contacted the complainant who provided additional information.

It was alleged that the subjects' proposal contained experiments that had already been accomplished. It was noted that the PIs submitted a letter with their proposal to explain the duplication and modification of past experiments. Repetition and/or modification of experiments is fundamental to how science functions and that proposing to do them is not a misconduct-in-science issue. It is during the technical review of proposals that the scientific merit for repeating experiments is evaluated.

It was alleged that the subjects' papers submitted for publication to different journals were repetitive. Journals in the scientific community select papers for publication based on their merit. Papers submitted for publication are reviewed by scientists with the appropriate scientific backgrounds. It is these reviewers and editors who have the responsibility to decide whether or not papers contain repetitive work, and if so, if they are acceptable for publication. The subjects' papers examined by OIG involved an ongoing long-term investigation that utilized experiments with similar overall design. However, the selected experimental parameters with these similarly designed experiments were different. This allegation has no substance.

It was alleged that the subjects provided only limited credit in their publications for work of other scientists, specifically for work of the complainant. OIG examined the subjects' papers provided by the complainant and found that the subjects did cite the complainant appropriately. For example, in one case, the subjects discussed the results of an experiment that they acknowledged was originally performed by the complainant; they

compared their results with those of the complainant and cited the relevant paper. This allegation has no substance.

It was alleged that the subjects falsified data. Evidence provided by the complainant rested solely on the concern that the statistical variance of data in the subjects' articles was less than what was generally observed by other workers in the field. The complainant provided OIG with eight of the subjects' articles representing publications in five scientific journals spanning a period of seven years. Each of these journals has a review process to determine a paper's scientific merit prior to selection for publication. The individual papers contained the data and in some instances the formulas used to calculate the statistics. Better statistical results do not directly mean misconduct in science. There are numerous reasons why statistical results of experiments may be exceptional. These exceptional results would be questioned by reviewers and readers alike if the reported variance was distinctly different from what was generally observed in that particular field without some acceptable explanation. The fact that so many of the subjects' papers have been published in peer-reviewed scientific journals over this seven-year period would indicate that peers in the field accepted the data and their variance. This allegation has no substance.

The OIG determined that the four allegations in this case were either not issues of scientific misconduct or contained no substance.

The OIG closed this case.

cc: Staff Scientist, Deputy AIG-Oversight, AIG-Oversight, Counsel to IG, IG