## **CLOSEOUT FOR M97100043**

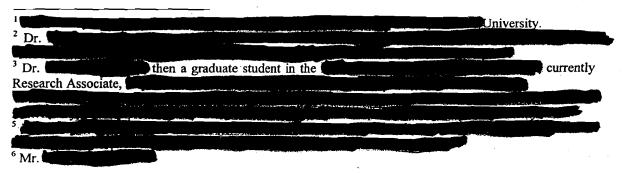
On 6 October 1997, OIG received an allegation from an officer of an institution<sup>1</sup> that the subject<sup>2</sup> may have committed misconduct in science. It was alleged that the subject failed to give appropriate credit to a graduate student<sup>3</sup> who supplied ideas and information that were used in the development of software under an NSF grant<sup>4</sup> on which the subject was co-PI.

NSF first funded this project to develop computer software in 1988.<sup>5</sup> After the second proposal was submitted in 1991, the student, at the suggestion of the subject, gave a presentation at the project's weekly meeting in which he demonstrated and discussed certain software which he had previously developed. According to the student, the presentation was very well received, particularly by the subject. After attending the weekly meetings a few more times, the student directed his attention to other activities, and ceased interacting with the group.

However, before the student's involvement ceased, the PI and co-PI submitted a letter in response to an NSF program officer's queries regarding their pending proposal to NSF for support of the project. The letter explained their plans for the project, and mentioned the student's software, describing it as "remarkable," and "revolutionary." From his knowledge of the letter, the student believed that his software contributed substantially to the development of the final product, and the co-PI's failure to acknowledge or attribute his contribution was misconduct in science.

In response to the student's allegation of misconduct in science, the institution appointed an investigation committee. The subject's position was that the student should not have been acknowledged because the final form of the product two years later was based primarily on refinements of concepts developed in the first NSF-funded proposal, and the final product did not incorporate the features of the student's software that were praised in the letter. To assess whether the student should have been credited for a contribution to the project, the institution's investigation committee focused on a comparison of the features of the software at different stages—when the student first spoke to the group, during the ensuing weeks, and the final product.

In the committee's view, the PI's notes, the statements of other witnesses, and the final version of the software substantially corroborated the subject's account of the development of the software. The PI's notes indicated that contrary to the student's allegations, certain features of the software had already been incorporated prior to the student's involvement. In addition, the software engineer<sup>6</sup> stated that he did not use the



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student's ideas in writing the code for the programs. A senior researcher<sup>7</sup> believed that he had been the first to incorporate some of the key features at issue into a program, and that the student's program was a brilliant extension of his program. Moreover, the major features of the final product had been developed about a year before the student presented his ideas to the group, and the final version of the software did not utilize the special features demonstrated by the student. Thus, the committee concluded that the student's ideas did not contribute to the development of the final version of the software.

Based on its assessment of the facts, the committee considered whether the student was justified in making his allegation, and whether the subject's actions were misconduct in science. Because the project team did not inform the student how the software had been developed, the majority of the committee reached the conclusion that the student had good reason to believe that he had contributed substantially to the final version of the software, and accordingly, to file his complaint. In addition, the committee thought that the student's clinical experience and new ideas stimulated the thinking of the project team and strengthened its NSF proposal. Nonetheless, the committee concluded that although it would have been appropriate to have acknowledged the student in the documentation that was published with the software, the student's contributions did not warrant co-authorship.

While a majority of the committee believed that the failure to acknowledge the student was undesirable, the committee unanimously concluded that the lack of acknowledgment by the subject was not misconduct in science. We concur with the committee's assessment. Accordingly, this case is closed and no further action will be taken.

cc: Integrity, IG

stringent standard of evidence had been applied in this case."

<sup>&</sup>lt;sup>8</sup> The committee assessed the evidence under the clear and convincing standard, rather than NSF's standard of the preponderance of the evidence. Although OIG requested an evaluation using the preponderance of the evidence standard, the committee "believe[d] that the appropriate standard for such charges should be one of clear and convincing evidence," and thus was "reluctant to do so and set a precedent for judging subsequent cases by two standards." Furthermore, the committee stated that "In no way should this reluctance be seen to suggest that the committee would have come to a different conclusion if a less