

## CLOSEOUT FOR M97010001

On 3 January 1997, OIG received an allegation that the subject<sup>1</sup> may have committed misconduct in science. It was alleged that the subject, who worked with her advisor as a postdoctoral associate, may have plagiarized or stolen ideas from the her advisor's 1993 grant proposal to NIH<sup>2</sup> and used them in her 1996 grant proposal to NSF.<sup>3</sup> It was alleged that this was likely if the subject's proposal dealt with the physiology of a certain organ system in a certain type of organism. The complainant was particularly concerned that the subject's proposal might substantially overlap the advisor's, examine similar hypotheses, and use similar methodology. The complainant stressed that since he had not seen the subject's NSF proposal, he had no evidence of any impropriety; rather, his allegation was based totally on his past experience with the subject which lead him to believe that she may have refurbished the advisor's NIH proposal or otherwise used the advisor's work without proper attribution.

OIG obtained the subject's 1996 NSF proposal and compared it with the advisor's 1993 NIH proposal. The advisor's 1993 NIH proposal was based on a broad interest in the physiology of an organ system of these organisms as stemming from its relevance to their role as disease vectors. Although the intellectual and methodological content of the NIH proposal was almost entirely the advisor's, stemming from an earlier proposal of his to NSF,<sup>4</sup> we learned that the subject played a minor role in developing his NIH proposal.

By contrast to the advisor's proposal, the subject's proposal was narrower, focusing on a particular hypothesis about the role of this organ system in water loss. To test this hypothesis, the subject proposed to characterize the relationship of the physiology of this organ system to water loss in species with three different types of life histories.<sup>5</sup> Some of the methodologies proposed by the subject were the same as those used by the advisor, including a new methodology described in the advisor's proposal; other techniques that the subject proposed to use differed from the advisor's methodology.

A comparison of the overall content of these proposals, an assessment of the subject's previous work in this area, and an evaluation of the status of research in this field lead to the conclusion that the subject's proposal was her own intellectual product, and not the result of intellectual theft. Although the subject's proposed work

<sup>1</sup> Dr. [REDACTED]

<sup>2</sup> [REDACTED]

<sup>3</sup> [REDACTED]

<sup>4</sup> [REDACTED]

<sup>5</sup> The advisor had proposed to examine three of these species in his NIH proposal.

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is clearly in the same subject area as the advisor's, it is narrower and focuses on the use of comparative physiology to test a specific hypothesis. The subject's proposal is a natural extension of the subject's previous work in this field. During the period from 1992-1996 the subject co-authored 13 publications in this field of research; the advisor was also a co-author of five of these publications. Four of the subject's publications discussed the hypothesis about water loss. The subject is therefore well established in this field and is well acquainted with the various methodologies used by researchers in this field. Moreover, it is clear that the subject, as a collaborator of the advisor, was well versed in the particular forms of these methodologies favored by the advisor. Indeed, the new methodology that was mentioned in both the advisor's and subject's proposals was first described in a publication co-authored by the advisor and subject.<sup>6</sup> Not only did the subject have the right, as would any scientist, to enter this field and write a proposal on that topic; she might reasonably have been expected to do so, based on her background and publishing history.

Neither the advisor nor the subject originated this area of research; rather, it was discovered by other researchers about half a century ago, and has been studied by many researchers ever since. The study of this physiology in these species was initiated by other researchers in the late 1970's. The hypothesis about water loss was originally put forth by two other researchers in the early 1980's, and has been examined by many researchers in the intervening years. The published hypotheses and methodologies in this area have been the topic of research by many researchers in the past, and are clearly open to others who wish to enter the field in the future.

Since this field of research is not a unique, novel, and previously unpublished area originating with the advisor, the allegation that the subject may have stolen ideas if her proposal dealt with this field of research, examined similar hypotheses, and used similar methodology, is without sufficient substance to pursue. No one can carve out an entire field, its hypotheses, and methodologies and claim them as his exclusive territory. This is especially true as applied to the advisor in this case, who was expected to assist the subject in becoming established in the field, and with whom he collaborated and published on these very topics. Based on the subject's previously published work, the published literature in the field, and a comparison of the proposals of the advisor and the subject, we conclude that there is no evidence of intellectual theft in the subject's proposal.

Similarly, we conclude that the subject did not seriously deviate from accepted practices in regard to minor textual similarities between her proposal and her advisor's. It is evident from the overall style of her proposal that the subject patterned her proposal after the advisor's. We see nothing inappropriate about this stylistic imitation, since it is a well accepted practice for junior associates to use their advisors'

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successful proposals as models in learning how to write a proposal. We also see nothing inappropriate about two routine methodological paragraphs in the subject's proposal that appear to have been paraphrased from similar paragraphs in the advisor's proposal and contain a citation for a source for the procedures. Such procedures would have to be set out in a way similar to this to ensure an accurate description of the procedure. In addition, the subject's proposal contains three widely separated sentences and one seven line methodological description that are nearly identical to the corresponding material in the advisor's proposal. Although we believe such verbatim copying is usually inappropriate, for the following reasons we do not believe that in this instance it was a serious deviation from accepted practices. One of the three sentences is intrinsic to the stylistic imitation discussed above; the other two are very broad generalizations of an introductory nature, with little specific scientific content. The seven line methodological description is that of the new methodology mentioned above. This technique was first described in an article the subject co-authored with the advisor. In her proposal, the subject cites this co-authored article as the source of the technique, although the wording is a close match for the advisor's proposal but not the article. Because the subject correctly attributed this technique to the advisor and herself, and the technique was a joint product of the two, we think that the use of a short amount of wording identical to that in the advisor's proposal was not serious. In short, the three sentences and seven lines of methodological description do not rise to the level of misconduct in science.

From the foregoing analysis, we concluded that the allegations of misconduct in science have insufficient substance to pursue further.

This inquiry is closed and no further action will be taken.

cc: Assistant Counsel to the IG, AIG-Oversight, IG