

Author's Response

Sir:

Our description of Cellmark Diagnostics' error in the case of *People v. John Ivan Kocak* (Superior Court of San Diego County, California, No. 110465) was based on a transcript of sworn testimony by a Cellmark Diagnostics witness. During direct and cross examination, this witness testified that Cellmark had found an STR DNA profile consistent with Mr. Kocak's profile in what was purported to be a mixture of semen and blood on a cotton cloth that had been used by a rapist to wipe himself after a sexual assault. The testimony provided powerful support for the prosecution's contention that Mr. Kocak was the source of that stain.

During re-direct examination, on the second day of testimony, the witness realized that the laboratory had made a serious mistake. After a break, the witness testified that the DNA profile attributed to Mr. Kocak was actually the profile of the rape victim, and the profile attributed to the victim was actually that of Mr. Kocak. Consequently, it was the victim's STR profile, rather than Mr. Kocak's, that Cellmark had found in the stain on the cloth. Thereafter, Cellmark issued an amended laboratory report.

In light of these facts, it is misleading for Dr. Cotton and Dr. Word to assert that "there was no indication of any documentation errors in the case file" and "no sample switch or laboratory error had been made." Cellmark's final report, which is part of the case file, contains a table of alleles in which the profiles of Mr. Kocak and the rape victim are reversed. The report states conclusions that Cellmark later acknowledged were incorrect.

The claim that "there was no indication of any errors in the scientific procedures used or the data obtained in the case..." is also misleading. The conclusions stated in the laboratory report and in the witness's sworn testimony were wrong. That the error occurred when the results were being recorded and interpreted, rather than when the test itself was being run, is a distinction without a difference. Should a suspect who is falsely incriminated take comfort in the fact that the error occurred when the analyst was recording and evaluating the test results, rather than when the analyst was labeling tubes? More to the point, should we be less concerned about the reliability of the laboratory procedures that allowed such an error to occur? Drs. Cotton and Word make no mention of steps their laboratory has taken, if any, to prevent such errors in the future.

Mr. Clarke does not dispute that an error occurred that falsely linked Mr. Kocak to an evidentiary sample associated with the

rape, but he quibbles about our description of the evidentiary sample. His point is irrelevant to understanding the nature of Cellmark's error. It is also irrelevant whether the judicial proceeding in which the witness presented erroneous testimony is properly called a "trial" rather than a "pretrial, or *in limine*, hearing." The key point is that the error was not caught until after the individual had testified incorrectly. Finally, Mr. Clarke asserts that other evidence in the case showed that Mr. Kocak was guilty anyway. If Mr. Clarke is suggesting that a laboratory error is unworthy of attention if it happens to incriminate a guilty person, then his position is shortsighted. If he is making some other point, we fail to see what it is.

We believe the Kocak case offers important lessons about the potential for error in DNA testing and, more broadly, about the need for quality assurance in forensic science. It shows that even reputable, accredited laboratories can make serious errors in DNA testing and that such errors can arise during the data-recording and evaluation process as well as from sample labeling problems. It raises serious questions about the adequacy of Cellmark's procedures for reviewing casework before issuing reports. It also raises important issues about the examination and characterization of samples before DNA analysis. It is disturbing, for example, that a sample attributed to "semen" could turn out to be from the female rape victim. (This problem also occurred in the Philadelphia case discussed in our article). Such errors illustrate the problems that can arise when forensic DNA analysts make inadequate efforts to determine what they are testing.

The only reason we know about this error is that, fortunately, it was caught. We can only guess at how many similar errors are not caught, and therein lies the problem that was the focus of our article. Although errors that can falsely incriminate criminal suspects can and do occur in forensic DNA testing, the exact frequency of those errors is unknown. This is an important limitation on our ability to draw conclusions from DNA evidence because, as our article demonstrates, the potential for error can undermine the probative value of DNA evidence drastically in some cases. In light of the Kocak case, and other more recent cases in which errors in DNA testing have come to light, these are points that forensic scientists must take seriously.

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