

**STATE OF MICHIGAN**  
**COURT OF APPEALS**

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PEOPLE OF THE STATE OF MICHIGAN,

Plaintiff-Appellee,

v

KEVIN CARTER HOLTZER,

Defendant-Appellant.

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FOR PUBLICATION

February 25, 2003

9:00 a.m.

No. 223984

Grand Traverse Circuit Court

LC No. 98-007603-FC

Updated Copy

April 25, 2003

Before: Murphy, P.J., and Sawyer and R. J. Danhof\*, JJ.

SAWYER, J.

Defendant was convicted following a jury trial of first-degree felony murder, MCL 750.316, and was sentenced to the mandatory term of life in prison without the possibility of parole. He now appeals and we affirm.

Defendant was convicted of brutally murdering eighteen-year-old Kaylee Bruce at the Beach Condominiums in Traverse City, where she worked as a desk clerk and defendant was a renter. Her body was found by the maintenance supervisor on the morning of February 17, 1998. She had suffered nineteen lacerations that extended to the bone, multiple skull fractures, severe neck injuries consistent with strangulation, severe blunt-force injuries to the torso, chest, abdomen, and pelvis, and extensive internal bleeding. Additionally, a metal rod had been forced into the decedent's vagina with such force that it lacerated her vagina and penetrated two inches into her pelvic bone. It was opined that it had been necessary to drive the rod with a mallet or kick it multiple times with a sturdy shoe to drive it into the bone. The decedent was still alive when this injury was inflicted. Furthermore, the blood on her breasts had been smeared as if someone had stroked her breasts. Additionally, money was missing from the office where the decedent worked.

There was a series of bloody footprints at the scene, all made from the same type of footwear, a pair of size 12 or 12-1/2 Caterpillar work boots. These boots were similar in style to a pair that defendant had recently owned; defendant's boots were never found, however, and no comparison could be made. Defendant was seen wearing the boots before February 14, but wore

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\* Former Court of Appeals judge, sitting on the Court of Appeals by assignment.

different, new boots to work on February 17. Additionally, a tire valve core was found near the decedent's body; defendant worked at a Tire Factory store owned by his father. There was evidence that it was common for tire valve cores to become caught in the tread of Caterpillar boots worn by store employees.

Defendant moved out of the Beach Condominiums about a week after the murder, and did not report to work as scheduled on February 26. He did return to work about two weeks later. However, in March 1998, defendant, using a false name, purchased an Amtrak ticket in Toledo for passage to Carbondale, Indiana, with a changeover in Chicago. Defendant was taken into custody by the FBI in Chicago.

Defendant's felony-murder conviction was based on the predicate felonies of third-degree criminal sexual conduct and second-degree criminal sexual conduct. A third theory of felony murder based on a predicate felony of larceny was rejected by the jury.

In addition to the evidence set out above, the prosecutor introduced evidence of mitochondrial DNA (mtDNA) from hairs found at the crime scene and in defendant's bedroom. The admissibility of this evidence underlies the majority of defendant's arguments on appeal. At issue is mtDNA testing on three hairs. Two hairs subsequently determined to belong to defendant were found at the crime scene, and are referred to as the "pubic hair" and the "torso hair." Additionally, a hair identified as belonging to the victim was found in defendant's bedroom, and is referred to as the "bedroom hair."

Defendant first argues that the prosecution failed to meet its burden of showing that mtDNA evidence is generally accepted in the scientific community. We disagree.

There are two types of DNA, nuclear DNA (nDNA) and mitochondrial DNA. Every cell of the body, except for red blood cells, contains both types of DNA. Nuclear DNA is the more commonly known variety, and is found in the nucleus of the cell. One-half of an individual's nuclear DNA comes from each parent. Each nDNA molecule consists of approximately three billion base pairs of nucleotides. Although over ninety-nine percent of nuclear DNA is the same for all people,<sup>1</sup> every person, except for identical twins, has unique differences in his nuclear DNA. It is this uniqueness that gives rise to its usefulness in forensic work.

Mitochondrial DNA, on the other hand, is found in small organelles called mitochondria, which are found in every cell floating in the protoplasm. An mtDNA molecule is significantly smaller than an nDNA molecule, containing only about sixteen thousand base pairs. It also differs from nDNA in that mtDNA is inherited solely from the mother. Accordingly, it can be used to establish a maternal lineage. Another difference between nDNA and mtDNA is that nDNA is arranged in a long, double helix "twisted ladder" formation while mtDNA has a circular formation, like a twisted rubber band. Furthermore, while each cell has only one nucleus, it may

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<sup>1</sup> Indeed, there is a greater than ninety-nine percent similarity between human and chimpanzee nuclear DNA.

have thousands of copies of mitochondria, and each mitochondria has between two and ten copies of mtDNA. Thus, while nDNA is significantly larger in size, mtDNA is present in significantly greater numbers. Additionally, mtDNA is more likely than nDNA to survive in a dead cell. Thus, it is easier to recover useable mtDNA than usable nDNA.

The use of mtDNA in criminal forensic work is relatively new, although it has been used in a variety of situations, such as matching body parts in the Oklahoma City bombing, identifying victims in Bosnia, and identifying the remains of an American citizen killed in Haiti. It has also been used in historical research. For example, it has been used to identify the remains of one of the "unknown soldiers," as well as the remains of Jesse James. It was used to examine the bones of Czar and Czarina Romanov to dispute the claim of a woman that she was the Grand Duchess Anastasia. At the time of the hearing in this matter, approximately one thousand papers had been published on the subject, although less than one hundred of those involved criminal forensic issues.

It is unnecessary to delve into the minute details of DNA analysis. At the risk of oversimplifying the process, two DNA samples are sequenced; that is, the base pair pattern is determined. One sample is the "known" and the other is the "unknown."<sup>2</sup> The DNA sequences of the two samples are compared to determine if they are a match. If there is a difference in so much as one base pair, then the contributor of the known sample is excluded as the source of the unknown sample. Thus, DNA testing is really a test for exclusion.

The mtDNA samples in the case at bar were tested by two separate laboratories. Dr. Marcia Eisenberg from LabCorp reported a match between the decedent's mtDNA and the "bedroom hair." The LabCorp testing also reported matches between defendant's mtDNA and the pubic hair and torso hair.<sup>3</sup> A second series of tests were done by Mitotyping Technologies, which reported the same results.

The admission of evidence is reviewed for an abuse of discretion. *People v Jones*, 240 Mich App 704, 706; 613 NW2d 411 (2000). Fortunately, we are not called upon to make a scientific judgment of the merits of the evidence. Rather, as explained in *People v Adams*, 195 Mich App 267, 269; 489 NW2d 192 (1992), mod on other grounds 441 Mich 916 (1993), the question for the trial court was whether the scientific evidence is generally accepted in the scientific community:

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<sup>2</sup> The "unknown" would be the sample recovered from the crime scene and the "known" would be a sample from a known donor, such as the suspect or victim. Thus, in the case at bar, the three hairs recovered from the crime scene and defendant's apartment would be the "unknown" samples and the "known" samples would be those known to come from defendant and the victim, such as a blood sample drawn from defendant or the victim.

<sup>3</sup> An attempt was made at nDNA testing, but there was insufficient nuclear DNA present to get a conclusive result, although it did not eliminate defendant as the contributor.

The *Davis-Frye* rule, adopted from *People v Davis*, 343 Mich 348; 72 NW2d 269 (1955), and *Frye v United States*, 54 App DC 46, 47; 293 F 1013 (1923), allows the admission of expert testimony regarding novel scientific evidence only if that evidence has gained general acceptance among scientific experts in the field. The party offering the evidence carries the burden of demonstrating its acceptance in the scientific community. *People v Young*, 418 Mich 1, 21, n 7; 340 NW2d 805 (1983); *People v Gistover*, 189 Mich App 44, 46; 472 NW2d 27 (1991). The trial court's findings of fact regarding this issue will not be disturbed on appeal unless they are clearly erroneous. MCR 2.613(C); *Gistover*, p 46.

Thus, our inquiry is limited to determining whether the trial court clearly erred in finding that mtDNA testing has achieved general acceptance among experts in the field.

The trial court in this case clearly devoted a great deal of time to this issue, and delivered an opinion that went into great detail reviewing the evidence and the issues involved. Despite the complexities involved, the trial court did an admirable job mastering the issue. Ultimately, the trial court placed a great deal of emphasis on the opinions of three experts, Drs. Jeffrey Boore and William Shields, who primarily work in the field of nonhuman evolution, and Dr. Mark Stoneking, who works in the field of human evolution. The trial court placed greater emphasis on the testimony of Dr. Stoneking, and less emphasis on the other experts because they possessed, to one degree or another, a financial interest in this area.<sup>4</sup> For example, Dr. Eisenberg from LabCorp and Dr. Terry Melton from Mitotyping, have a financial interest in the acceptance of mtDNA testing because testing in future cases will provide a source of revenue for the companies. Similarly, Dr. Theodore Kessis, defendant's expert, has been compensated for testifying against the acceptance of mtDNA testing in a number of cases.

On the issue of the acceptance of mtDNA evidence in the scientific community, the trial court opined as follows:

[Dr. Stoneking's] testimony was pretty clearly that this is a reliable technique that can be used and is accepted for—as reliable for purposes of identification—again identification—understanding that these are not like fingerprints or nuclear DNA where the identification is virtually certain, but, rather, like identification in the sense of being evidence that would lead to that conclusion. It really is a process of exclusion more than inclusion. If there's differences between the two mitochondrial DNA sequences, then you know they don't come from the same people, whereas if they are the same, they may come from the same people, but that is not always the case, as we've discussed.

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<sup>4</sup> The lesser reliance on Drs. Shields and Boore was due to their more limited experience and published activity in the area. Thus, ultimately the trial court placed the greatest reliance on Dr. Stoneking, noting that he was one of the world leaders in the use of mtDNA, and that his interest was strongly academic rather than pecuniary.

There was—he was really the only expert who was not—who was truly disinterested, as defined in *People versus Young*, who testified on the subject. He said it was accepted. On the other hand, we had experts, a couple from the Defense, who I guess would meet the standards of *Young* that their livelihood is not intimately connected with the new technique, but I think that—Doctor Shields, I know, testifies here hither and yon against this technique and has some investment against it. I guess I have concluded that the fact that this technique—that is mitochondrial DNA sequencing—is used for so many other valid and accepted ways and is relied upon, coupled with Doctor Stoneking's testimony, which I found most persuasive of all the witnesses on this question, leads me to believe that this is a technique that is accepted in the scientific community and can be used and relied upon to be used, if it's done right, for identification work in criminal investigations.

We are not persuaded that the trial court clearly erred in reaching this conclusion. The trial court clearly placed a great deal of reliance on Dr. Stoneking's testimony, and with good reason. Furthermore, the case for mtDNA is strengthening with time, not weakening. In Holland & Parsons, *Mitochondrial DNA Sequence Analysis—Validation and Use for Forensic Casework*, Forensic Science Review, Vol 11, No. 1, June 1999, pp 40-41, Drs. Mitchell Holland and Thomas Parsons concluded as follows:

The use of mtDNA sequence analysis to identify human remains has led the way for the application of mtDNA analysis in forensic criminalistic casework. The first case where mtDNA results were introduced into a court of law in the U.S. was the State of Tennessee vs Paul William Ware in August of 1996. This case involved the association of a pubic hair, found in the throat of a four year old female child, to the suspect, Mr. Ware, who was subsequently convicted of rape and murder. Since then, mtDNA has been used in more than four hundred forensic cases, however, very few that have been published [2]. Based on the long list of citations for cases involving identification of human remains (see above), it is not surprising that publishers have little interest in continuing to publish material on this subject. Only those most notable and interesting cases, or cases with historical significance tend to make their way into scientific periodicals.

In the past three years, mtDNA results have been admitted into evidence in at least ten states (Tennessee, South Carolina, Michigan, North Carolina, Maryland, Pennsylvania, New Mexico, Indiana, Washington, and Texas), and has been found inadmissible in the State of Florida on a perceived lack of clarity when reporting mtDNA statistics (see Section II). Of the ten cases which have gone to court through the FBI laboratory, eight cases have resulted in convictions, in one case the suspect pled guilty after the mtDNA results were admitted, and the final case was awaiting a decision at the time this manuscript was in preparation. In addition, two of these cases involved admissibility hearings. Finally, the specimens analyzed in these ten cases were primarily hairs and skeletal remains,

the types of biological material typically encountered in other scientific laboratories studying mtDNA.

Outside the U.S., mtDNA analysis has been applied to forensic casework for a number of years. The FSS laboratory in the U.K. took the lead and introduced mtDNA in case work in 1992. To date, they have completed more than 140 cases involving mtDNA analysis, the vast majority of which are criminalistic cases. In addition, at least 40 other laboratories in ten other countries across Europe are performing mtDNA analysis, and there are laboratories in Asia, Australia, the Middle East, and South America that are developing or have developed mtDNA capabilities. Thus, mtDNA analysis has been well established in Europe, and is a generally accepted forensic DNA profiling method worldwide.

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While sometimes perceived as a "new" application, mtDNA identity testing has been performed routinely for at least seven years, with a proven track record of utility and reliability. As documented in this review, the forensic scientific community has amassed a vast base of experience in mtDNA identity testing, in many laboratories worldwide. As a result, mtDNA sequence analysis for forensic identity testing is robust and "validated."

For the above reasons, we conclude that the trial court did not err in admitting the mtDNA evidence.

Next, defendant argues that the prosecutor did not establish that generally accepted laboratory procedures were followed in this case and, therefore, even if mtDNA evidence is generally admissible, it should not have been admitted in this case. We disagree.

As this Court explained in *People v Lee*, 212 Mich App 228, 281; 537 NW2d 233 (1995):

Whether the proper procedures and safeguards are followed in a particular case is a matter for the jury to consider in determining how much weight it should give the results. However, where there are serious errors in a particular laboratory's work, a court may rule the test results themselves to be inadmissible. [Citing *State v Russell*, 125 Wash 2d 24, 54; 882 P2d 747 (1994).]

The trial court found that the procedures followed by Mitotyping involved only minor problems, and that those problems went to weight, not admissibility. Defendant's primary complaint against Mitotyping's protocols is that they did not follow FBI protocols. The trial court, however, found those differences to be minor and, again, going to weight, not admissibility.

The trial court had far greater concerns with the procedures of LabCorp, noting those problems to be "extensive and widespread," and that the court "spent a lot of time anguishing about whether to let them in."<sup>5</sup> Ultimately, however, the trial court concluded that the likelihood of the necessary events occurring from LabCorp's relaxed procedures to create multiple contaminations resulting in false positives in all the tests was "very, very unlikely" and, therefore, "with some reluctance," the trial court concluded that any faulty procedures by LabCorp went to weight, not admissibility.

Once again, we are not persuaded that the trial court erred in its assessment of this issue. As the trial court noted, the effect of contamination of a sample is most likely to produce a false negative rather than a false positive.<sup>6</sup> To have created a false positive, mtDNA from the "known" blood samples of defendant and the victim would have to have found their way into the respective "unknown" hair samples so that the testing of the unknown samples would yield the same mtDNA sequences as the known samples.<sup>7</sup> As the trial court noted, in the case at bar this would have had to happen in multiple tests from samples that arrived in the lab at different times, and all yielding false positives.<sup>8</sup> Furthermore, the LabCorp results were confirmed by the Mitotyping results. Thus, there would have to have been similar contamination events at the second laboratory, reducing still further the likelihood of multiple false positives at LabCorp.

In sum, we agree with the trial court that the likelihood of such false positives was remote. In fact, the likelihood was so remote that we cannot say that the errors committed by LabCorp in its procedures were so serious that they affected the admissibility of the evidence. Rather, we agree with the trial court that the issue whether laboratory procedures were followed presented an issue of weight for the jury to resolve. *Lee, supra*.

Next, defendant argues that the trial court erred in allowing use of the "counting method" in describing the mtDNA results. Specifically, defendant argues that the method of reporting the results should be subject to the *Davis-Frye* test, that the mtDNA database is too small to be reliable, and the fact that defendant's DNA sequence had not been previously seen in the database was highly prejudicial. We disagree.

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<sup>5</sup> The trial court did note that this case appears to be the first mtDNA case LabCorp did for criminal-investigation purposes.

<sup>6</sup> For example, if both the "known" and "unknown" samples come from the same person, they would match. However, if foreign DNA is introduced through contamination, then the testing would produce a nonmatch and the defendant would be incorrectly excluded.

<sup>7</sup> We would also note that even in such a case, if the "unknown" sample was, in fact, from a source other than the person who contributed the "known" sample, the contamination would have to be sufficiently great for it to overwhelm the mtDNA from the "unknown" sample so that the differing mtDNA from the unknown sample would not be present in a sufficient amount to create a nonmatch.

<sup>8</sup> In the case of the so-called torso hair, that hair arrived in the lab 2-1/2 months after the "known" blood sample had last been tested, thus making any potential cross-contamination very remote in time.

We note that defendant misstates the evidence when he claims that his mtDNA sequence had not been previously seen in the database. In fact, defendant's mtDNA sequence had been reported twice in a database of 1,657 people, and the decedent's sequence was seen six times in the same database. Moreover, defendant's argument overlooks the fact that there was expert testimony that the counting method, which merely reports how many times a particular sequence has been seen before in the FBI database, is "excessively conservative" and favors the suspect.

In any event, this Court has held that the statistical analysis of DNA testing is relevant to the weight of the evidence, not its admissibility. *Adams, supra* at 279; *People v Chandler*, 211 Mich App 604, 611; 536 NW2d 799 (1995). Accordingly, the trial court did not err in admitting this evidence.

Defendant's next issue, whether the improper admission of mtDNA evidence was harmless, is moot inasmuch as we have concluded that the evidence was properly admitted.

Finally, defendant argues that he was denied his right to a speedy trial. We disagree.

Nineteen days before the March 29, 1999, trial date, the prosecution informed the trial court that it intended to seek a second test of the subject hairs in this case. Defendant objected, asserting his right to a speedy trial. The delay was granted, and trial in this case was not conducted until October 1999, nearly eighteen months after the preliminary examination in this case, and over nineteen months after his arrest.

This Court set forth the factors to be considered in analyzing a claim of a denial of a speedy trial in *People v Mackle*, 241 Mich App 583, 602; 617 NW2d 339 (2000):

A criminal defendant has a constitutional and statutory right to a speedy trial. US Const, Ams VI and XIV; Const 1963, art 1, § 20; MCL 768.1; MSA 28.1024. See also MCR 6.004(A). "In determining whether a defendant has been denied a speedy trial, four factors must be balanced: (1) the length of the delay, (2) the reasons for the delay, (3) whether the defendant asserted his right to a speedy trial, and (4) prejudice to the defendant from the delay." *People v Levandoski*, 237 Mich App 612, 620, n 4; 603 NW2d 831 (1999), citing *Barker v Wingo*, 407 US 514, 530; 92 S Ct 2182; 33 L Ed 2d 101 (1972). Speedy trial claims raise constitutional issues that we review de novo. *People v Cain*, 238 Mich App 95, 108; 605 NW2d 28 (1999).

With respect to the issues of the length of delay and prejudice to defendant, defendant asserts without analysis or support that the delay not attributable to defendant exceeded eighteen months and, therefore, contrary to the trial court's holding, prejudice is presumed.

Defendant is correct that if the delay not attributable to defendant exceeds eighteen months, prejudice is presumed. *People v Collins*, 388 Mich 680, 690; 202 NW2d 769 (1972). If the delay is less than eighteen months, the burden is on the defendant to show actual prejudice. Once the eighteen-month mark is reached, however, the prosecutor must show that the defendant was not prejudiced by the delay. *Id.* at 695.

In the case at bar, the prosecutor disputes whether the delay not attributable to defendant exceeded eighteen months. First, the prosecutor argues that the delay in the preliminary examination until April 30, 1998, was at defendant's request. Second, the prosecutor argues that a trial originally began on June 21, 1999, which resulted in a mistrial being declared at defendant's request so that he could investigate newly discovered evidence.<sup>9</sup> Neither defendant's brief on appeal, nor his reply brief, contradicts either of these assertions. In fact, defendant's brief acknowledges that the trial court held that two months of the delay were attributable to defendant. Defendant does not argue that the trial court erred in so holding. If either of these delays are attributable to defendant, then the delay not attributable to defendant is less than eighteen months and, therefore, prejudice will not be presumed.<sup>10</sup> Accordingly, prejudice will not be presumed and, therefore, the burden is on defendant to establish that he was prejudiced.

With respect to prejudice, defendant makes no showing that he was, in fact, prejudiced by the delay. There was no continued incarceration awaiting trial inasmuch as defendant was incarcerated on an unrelated offense for much of the period. Furthermore, defendant points to no evidence that was lost because of the delay. Indeed, the only argument of prejudice defendant makes, other than that prejudice should be presumed, is that the prosecution used much of the delay to enhance the quality of its DNA-testing evidence. While a delay that impairs the defense must be taken most seriously, *Collins, supra* at 694, we do not equate an enhancement of the prosecution's case with the impairment of the defense. This does not, for example, involve an issue of the reliability of eye-witness identification that may degrade over time, or the loss of a defense witness. See *Collins, supra* at 694-695. Indeed, as our Supreme Court noted in *People v Den Uyl*, 320 Mich 477, 490; 31 NW2d 699 (1948), the "[r]ight of speedy trial should not operate to deprive the State of a reasonable opportunity of fairly prosecuting criminals." In sum, in determining prejudice to a defendant, we do not look at how the prosecutor's case was improved during the delay, but to whether the defendant's defense was degraded. In the case at bar, defendant makes no showing of such a harm to his defense caused by the delay.

In looking at the other speedy-trial factors, the delay in the case at bar was somewhat lengthy. Much of it, however, was due to the mtDNA testing, and the retesting to confirm results. Indeed, we note that at the onset of this case, only the FBI laboratory did mtDNA testing, and there was a fourteen-month delay in their testing. LabCorp, the first laboratory to which the prosecutor submitted the hairs for testing, had just begun testing hairs for mtDNA. Furthermore,

<sup>9</sup> Although the record before us does suggest that a trial was commenced in June 1999, there is no indication regarding why it was halted.

<sup>10</sup> A June 21, 1999, trial date was within eighteen months of defendant's arrest and there is no indication of further delay in trial attributable to the prosecutor. Further, if because of defendant's request, the preliminary exam was delayed until April 30, 1998, then trial would have to commence before October 16, 1999, for the delay to be less than eighteen months (even charging the initial fourteen days against the prosecutor, the time required by statute, MCL 766.4, in which to conduct the preliminary examination). Trial in the case at bar commenced on October 11, 1999, nineteen months and eight days after his March 3, 1998, arrest. For that matter, with defendant not challenging the trial court's conclusion that two months of the delay is attributable to defendant, the delay not attributable to defendant is less than eighteen months.

given the cutting-edge nature of this technology and some of the issues raised with respect to LabCorp's procedure, we cannot disagree with the trial court that submitting the sample to a second laboratory, Mitotyping, was consistent with the interests of justice.

Regarding defendant's demand for a speedy trial, it does not appear that he did so until March 1999, when the prosecutor requested a delay in the scheduled March 29, 1999, trial date to submit the samples to Mitotyping. The delay in making such a request raises the issue of the nature of defendant's concerns regarding a speedy trial. Meaning, defendant raised the speed-trial claim in the context of trying to prevent the hair samples from being subjected to a second test by a different laboratory, which would conceivably (and, in fact, did) enhance the quality of the prosecution's DNA evidence. As noted by the Court in *Collins, supra* at 696, the defendant's "assertion of his right to a speedy trial came so late as to be devoid of any sincerity or conviction," where the defendant in that case raised a speedy-trial issue the day before trial was to begin. In the case at bar, defendant, already incarcerated for another offense, did not seem concerned with how long it took to bring him to trial until a speedy-trial demand presented itself as a tactic to prevent the prosecutor from attaining additional evidence against defendant.

For the above reasons, we conclude that defendant was not denied his right to a speedy trial.

Affirmed.

/s/ David H. Sawyer  
/s/ William B. Murphy  
/s/ Robert J. Danhof