



### F28 Innocent People Convicted by Bite Mark Evidence: Is There a Problem?

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The goal of this presentation is to demonstrate that innocent people are being convicted of crimes based upon erroneous bite mark identification evidence. This is a serious problem. The educational objective of this presentation is to identify common errors in bite mark investigations and propose strategies for improving objectivity in bite mark analysis and comparison. The attendee will be able to understand the need for caution in reaching a conclusion of culpability solely upon bite mark evidence.

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The problem of innocent people being convicted and unjustly imprisoned for crimes they did not commit is a growing national concern which has recently been receiving public acknowledgment by politicians and is catching the attention of the general public. Advances in DNA identity testing have led to the exoneration of a number of innocent people. Some exoneration cases involve bite mark comparison evidence. Ray Krone, convicted by bite mark evidence, was the 100th innocent person convicted of capital murder to walk free from prison since the reinstatement of the death penalty in the United States. Mr. Krone maintained his innocence throughout his incarceration. Mr. Krone was sentenced to death in 1992 for the brutal murder of Kim Ancona, a Phoenix bar manager. Krone spent three years on Arizona's death row before his first conviction was overturned. Krone was retried and convicted a second time and sentenced to life in prison in 1996. Ray Krone, who had been branded as the "snaggletooth killer," was proved innocent of the murder of Kim Ancona by DNA testing. After being cleared by DNA, Ray Krone walked out of an Arizona State Prison a free man after 10 years.

The murdered bar manager, Kim Ancona, had been cleaning the CBS Lounge in Phoenix, Arizona on the evening of December 28, 1991. Her naked body was found in the men's restroom the following morning. She had been stabbed eleven times. An examination of the body revealed that she had been bitten on the left breast through the tank top she was wearing. There were unidentified shoe impressions, fingerprints, and hairs. Other evidence indicated she had been sexually assaulted. There was blood at the crime scene and on the victims clothing, but it was typed as ABO Type O, the same as Ancona, Krone, and some 43% of the population. Forensic DNA technology available at the time of the prosecution could not identify the blood of the perpetrator.

Ray Krone, a U. S. postal letter carrier without a criminal record, and honorably discharged from the U.S. Air Force, knew the victim; he had socialized with her and had been a customer of the CBS Lounge. There was little evidence that tied Krone to the killing except for evidence of a bite mark on the victim's breast, which an American Board of Forensic Odontology (ABFO), Board Certified Forensic Odontologist said positively, was better than a fingerprint and matched the dentition of Ray Krone. Despite evidence of his innocence presented at both of Krone's trials, the States weak circumstantial evidence bolstered by the forensic bite mark evidence that was controversial and disputed by other ABFO Board Certified forensic experts, Mr. Krone was convicted. There is no question that it was the bite mark testimony of the State's dental expert that convinced two separate juries that Krone was Anconas killer. After Krone's second conviction and after his appeals were exhausted Krone sought post-conviction DNA testing. Krone's lawyers asked that the tank top, through which one of the bites may have been inflicted, be examined for saliva. Not only was saliva found, but the results of testing showed that neither Krone nor the victim could have been the genetic source of the saliva. Comparison of the genetic profile of the saliva donor against the FBI Combined DNA Index System (CODIS) database that the State of Arizona Maintained on its inmates, associated the DNA evidence with a 36-year-old inmate of the Florence, Arizona prison, Kenneth Phillips, who had been convicted of attempted child molestation.

The Krone case is clear proof, again, of the power of DNA. Not only did the DNA test show that Ray Krone was excluded as the perpetrator, it also identified a different individual who was already incarcerated in the penitentiary for an unrelated sex crime. The odds were 1.3 quadrillion to one that Kenneth Phillips was the contributor of the saliva DNA found on Kim Ancona's tank top. After the DNA match, Phillips hair was found to be consistent with evidence hairs found on the victim's body. Phillips confessed to being present at the time of the murder of Ancona in a tape recorded interview. Phillips blood was genetically identified on the inside and outside of the victims jeans and underwear. Phillips fingerprints were found in the mens room of the CBS lounge where Kim Anconas body was found.

The Krone case is another in a growing number of cases where bite mark evidence has been shown to be erroneous. Bite Mark identification evidence is at serious risk of being held to be a junk science. If bite mark evidence is to remain as viable evidence of identification, measures should be taken to correct circumstances where errors and miscarriages of justice occur. Lessons learned from the Krone case should include: 1.) Avoid overstatement of the validity and certainty of a bite mark identification; 2.) Recognize the problem that marks can be made postmortem that can be misinterpreted as part of a bite mark injury pattern and; 3) Develop a minimum threshold of objective criteria for the suitability of a suspected bite mark before a



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comparison is attempted.

In conclusion, a scientific technical working group of forensic scientists should be formed to objectively study the viability of forensic bite mark evidence.

**Bite Mark, DNA, Innocent**