



L1 The Disappearance and Murder of Sierra LaMar: A Multidisciplinary Case Study

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Learning Overview: The goal of this presentation is to inform attendees of a complex homicide investigation that was heavily fueled by physical evidence examinations, including DNA, trace evidence, digital and video evidence, latent prints, and questioned documents.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by showcasing the ability for multiple forensic disciplines to work together to achieve the maximum potential of the evidence items submitted in a missing person case turned homicide.

Fifteen-year-old Sierra LaMar left her Morgan Hill, CA, home on March 16, 2012, but never made it to school. Her school bag, containing the clothes she'd been wearing the day she disappeared, and her discarded cell phone were found a short time later. Thus began an investigation that utilized multiple crime lab disciplines, culminating in a months-long 2017 trial that found Antolin Garcia Torres guilty of kidnap and murder, even though Sierra's body has never been found.

DNA was instrumental in identifying a suspect. Biological evidence found on Sierra's clothes matched to Garcia Torres in the Combined DNA Index System (CODIS), and a later search of his vehicle yielded additional evidence. The DNA testing for this case, much of which was developed in the first few days following Sierra's disappearance, utilized a plethora of DNA techniques and resulted in a variety of conclusions, each of which required a different type of statistical analysis, including mixtures, paternity testing, and Y-chromosomal Short Tandem Repeats (Y-STRs).

Trace evidence played a big part in this case. The trace evidence analyses required travel to assorted sites in Morgan Hill to collect comparison samples for testing. Examinations of Sierra's clothing and Garcia Torres' vehicle revealed various types of trace evidence, including hair, fibers, glass beads, soil, botanicals, and insect parts. Extensive examinations were performed on Sierra's cell phone, which had turned on and off several times following her disappearance. This prompted a visit to the Samsung® facility in South Korea by an investigator involved in the case.

Questioned documents examination was performed when a notebook of Sierra's was discovered at school, with notes written in it suggesting she was thinking of running away. Video evidence was paramount in this case. At the beginning of the investigation, video evidence from near the school bus stop and from the school bus itself was reviewed to see if Sierra had made it that far that morning. Later, video from the parking lot of the defendant's home and from his transactions at a bank were converted to a format that could be more easily viewed in court. In addition, video showed the defendant a few nights before Sierra's disappearance purchasing only a gallon of bleach and a turkey baster—a strange purchase for a 21-year-old male to be making by himself at night.

Prior to the abduction of Sierra, there were multiple attempted kidnappings in Morgan Hill. Investigators, interested to see if they could somehow link these attacks to Sierra's disappearance, requested that a Taser®, left at one of the scenes by the perpetrator, be processed for latent prints. A latent fingerprint was developed on the battery of the Taser® and was identified as Antolin Garcia Torres' print. Therefore, these attempted kidnappings became a part of the Sierra LaMar trial, showing that the defendant had a history of attacking women, and he was found guilty of these crimes as well. The work conducted by all these forensic disciplines in conjunction helped find a suspect, connected him to other crimes, and put to rest several defense theories. Antolin Garcia Torres was sentenced to life in prison without the possibility of parole.

Multidisciplinary, DNA/CODIS Hit, Trace Evidence