



Jurisprudence Section - 2016

F26 We Don't Catch the Smart Ones — How a Rubber Glove Left Genetic Fingerprints at the Crime Scene

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After attending this presentation, attendees will better understand the complexities of working on cold case investigations and how advanced DNA testing methods were helpful in developing evidence from a rubber glove and duct tape collected at an unsolved homicide.

This presentation will impact the forensic science community by illustrating the challenges in approaching a cold case investigation and the obstacles that both law enforcement and the forensic community frequently encounter. With the right resources, many of these cases can be re-opened and solved.

The murder occurred in the early morning hours of December 18, 2006, inside the victim's apartment in the Bathgate section of the Bronx as she was preparing to leave for work as a cook at a local children's daycare center. The 65-year-old woman was not discovered for two days, when anxious relatives had the fire department break down the door. She was found rolled up in a blanket in the back bedroom of her ransacked apartment. She was fully clothed with her head covered in duct tape. When the medical examiner unwrapped the body at the morgue, her arms were tightly bound behind her back with duct tape and her feet were taped together at the ankles. Clothing was tied as ligatures around her neck and torso. Cause of death was asphyxia caused by covering of the head and mouth. Decomposition from her body was so advanced the Office of the Chief Medical Examiner (OCME) was unable to develop her profile from her postmortem bloodstain card; it took nearly a year to develop a profile from her clavicle.

During the autopsy, the medical examiner found a piece of a yellow rubber glove lodged between the victim's arm and torso. That item, along with duct tape from the victim's body, was sent to the OCME for DNA analysis. Around that same time in 2006, the OCME began to use High Sensitivity (also known as Low Copy Number) DNA testing in homicide cases. The criminalists at the OCME developed a full male profile from the piece of rubber glove, which was then uploaded to the Combined DNA Index System (CODIS). The crime remained unsolved until 2008, when the laboratory received notification of a hit to convicted offender Mario Castro who was serving time for robbing and punching a young woman on the street who was returning to her apartment after work.

Despite the CODIS hit, there was more work to be accomplished. Based on signs of struggle and additional crime scene analysis, detectives believed more than one person was involved. The OCME tested duct tape from the victim's wrists and ankles as well as multiple suspect exemplars and elimination samples from family members who had worn clothing used as ligatures on her body. The laboratory was able to detect a mixture of DNA, including a different male than the cold hit suspect. After comparisons to the suspect exemplars and the application of the Forensic Statistical Tool (FST), a probabilistic genotyping system, the laboratory was able to provide results which helped identify an additional perpetrator, Pablo Garcia. Both defendants were convicted after trial and were sentenced to 25 years to life in prison.

LCN DNA, Cold Case, Forensic Statistical Tool