



## Pathology/Biology Section - 2013

### **G25 Cold Case Investigation: The Los Angeles Coroner Experience**

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After attending this presentation, attendees will understand the importance of archiving evidence and case records, maintaining chain of custody, and following procedures and protocols.

This presentation will impact the forensic science community by bringing closure to families and the community in the forensic investigation of cold cases.

The investigation of various long-unsolved murders in Los Angeles County through the use of modern forensic science techniques, especially recent advances in DNA, will be discussed. Three case examples will be used to discuss the challenges involved, including verification of identification, retrieval of records and photos, authentication of physical and sexual assault evidence, chain of custody documentation, need for following procedures, and maintaining an archive of old procedure manuals including testing techniques/standards. The need to withhold information from family members in the interest of not jeopardizing an investigation is paramount.

**Case 1:** Involved a decomposed young female found in a drainage culvert in 1985. She was identified by a forensic odontologist after charting of her teeth and comparison with her missing person ante mortem dental X-rays. There was evidence of sharp force trauma in the neck and torso. There was extensive organ tissue loss from decomposition/maggot activity. The use of a tool mark criminalist consultation in case evaluation will be discussed. A suspect was apprehended using DNA techniques and circumstantial evidence. Challenges faced by the medical examiner during trial preparation nearly three decades later included verification of identification. The problem was that the original forensic odontologist was not available due to illness and another dental consultant had to review films, photos, and reports of the original consultant to validate the identification. The medical examiner on case had also charted the teeth independently and this became important in trial preparation, as the removed jaws were not available for review.

**Case 2:** Involved a 33-year-old female who was strangled and sexually assaulted in 1979 in her Westside apartment. DNA evidence in the CODIS database identified a suspect and linked him with the sexual assault evidence recovered from the victim. Details of the interview process of the suspect, importance of maintenance of chain of custody logs during evidence collections, and detailed knowledge about testing procedures used all became important during trial preparation more than 30 years later.

**Case 3:** Involved a 15-year-old girl found in a suburb in 1974 with ligature marks on her neck, ankle, and wrists. The case was certified as suicidal hanging. Later, at an inquest, the manner was changed to death at the hands of another. The lack of follow-up by law enforcement and the Coroner-Medical Examiner's Office will be discussed, bringing up the importance of quality assurance in any medicolegal death investigation system.

In 1998, the current Chief Medical Examiner-Coroner reviewed the case because of a zealous detective and prosecutor and reopened the case. Problems in retrieving inquest transcripts after 24 years will be discussed, as they had not been transcribed and there was only one company that had the proper equipment to retrieve the information. Use of DNA techniques in linking the sexual assault evidence taken from the victim to the suspect and ramifications for the community safety in these delays will also be discussed.

**Cold Case, Evidence Collection, Archiving**