



### **B39 The Analysis of Latent Fingerprints Using Y-STR, Mitochondrial, and SNP Analysis**

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After attending this presentation, attendees will learn the results of several types of DNA analyses of fingerprints.

This presentation will impact the forensic community and/or humanity by demonstrating fingerprint samples are very often collected at crime scenes, but are rarely submitted for DNA analysis. Optimizing ways in which fingerprint samples can be analyzed for DNA may provide investigative leads for law enforcement personnel.

Fingerprints are commonly collected by police officers and investigators at crime scenes such as burglaries and homicides. Although the ridge patterns of these samples are often examined using AFIS (the Automated Fingerprint Identification System), they are rarely analyzed using DNA technology due to smudging or the anticipation of low DNA content. The present study utilized fingerprints from males that were collected on different substrates and extracted using different techniques. The samples were both untreated and treated with a variety of fingerprint powders and subsequently subjected to Y-STR or mitochondrial, and/or SNP analysis. The results of this study will be presented.

**Fingerprint, DNA, Forensic**