



Natalia Czado

Dissertation Defense
College of Criminal Justice
Department of Forensic Science
Doctor of Philosophy in Forensic
Science

Improving Forensic DNA Techniques for Non-Traditional Sample Types

This dissertation investigates methods to enhance forensic DNA analysis of challenging and non-traditional sample types through three key studies. The first study analyzes DNA from embalmed human remains, comparing the effectiveness of whole genome amplification (WGA), DNA repair techniques, alternative markers, and next generation sequencing. The second study focuses on optimizing workflows for analyzing trace DNA recovered from brass ammunition and fired cartridge cases. The final project aims to optimize SNP multiplexes for differentiating between *Cannabis sativa* crop types. Collectively, this research highlights the necessity of implementing alternative methodologies to expand the range of evidence types analyzed in crime labs to assist with more forensic investigations.

Event Information

October 31, 2024

3:30 PM (CST)

Email forensics@shsu.edu
to attend

Committee Members

Dr. Sheree Hughes (Chair)

Dr. Rachel Houston (Co-Chair)

Dr. Tim Kalafut

Dr. Angela van Daal



Sam Houston State University

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