

# Naming the Dead — Confronting the Realities of Rapid Identification of Degraded Skeletal Remains<sup>a</sup>

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**REFERENCES:** Edson SM, Ross JP, Coble MD, Parson TJ, Barritt SM: Naming the dead — Confronting the realities of rapid identification of degraded skeletal remains; *Forensic Sci Rev* 16:63–90; 2004.

**ABSTRACT:** The Armed Forces DNA Identification Laboratory (AFDIL) is one of the leading laboratories in the world for the processing of degraded skeletal remains. Extended efforts have been made to develop protocols and standards that will hold up to the intense scrutiny of both the scientific world and the U.S. legal system. Presented in this paper are the specifics of the in-house systems and procedures that have allowed AFDIL to streamline the processing of degraded skeletal remains and family references for mitochondrial DNA (mtDNA) analysis. These include the development of our in-house bioinformatics systems by which every package and sample that passes through the laboratory is tracked; protocols designed specifically for both questioned and reference samples; and the difficulties inherent in this type of organization. Two case studies presented involve one of ancient remains and one on the recent event of September 11, 2001. Finally, future directions available to both AFDIL and the DNA analysis community as a whole are discussed.

**KEY WORDS:** Bioinformatics, degraded skeletal remains, family references, high-throughput, mitochondrial DNA, mtDNA, phylogeography, standard operating procedures, SNPs.

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