MtDNA Reference Database for the Domestic Dog

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Dog hair, and thus dog mitochondrial DNA (mtDNA), is an additional source of mtDNA evidence that is present at many crime scenes as a result of either direct transfer from the dog, or secondary transfer from a person at the scene. Taking advantage of this evidence is relatively straightforward as mtDNA from human hair has commonly been used in many investigations.

The ability to identify canines from biological samples found at crime scenes could prove invaluable in terms of convicting or eliminating potential suspects. While canine mtDNA from dog hair has been used successfully in some criminal investigations, comparing the hair found at the crime scene to potential suspects in the case is the extent of its current capabilities.

We are in the process of creating a public reference database for comparison of samples found at crime scenes that will widely available to the forensic community.