

USE OF 11 FLUORESCENTLY LABELED CANINE STRS IN A SINGLE LANE ANALYSIS TO SOLVE A CRIMINAL CASE

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A case was submitted for DNA analysis in which an elderly woman was viscously attacked by two dogs. Eyewitnesses identified the dogs as a Doberman Pincher and a Rottweiler that belonged to a neighbor. The neighbor denied that it was his dogs that were involved in the attack. The victims clothing and known samples from the suspect dogs as well as known samples from other neighborhood dogs were submitted for analysis.

Samples were obtained from saliva stains on the victim's clothing using an organic extraction method. DNA testing was performed using eleven STRs. The primers used for testing were a combination of canine specific tetranucleotide repeats and dinucleotide repeats. Two multiplex PCR reactions were utilized to amplify the samples. One reaction was a triplex and the other an eight-plex. An ABI™ 9600 thermocycler was used to amplify the samples. The PCR products of the two multiplexes were then combined and loaded in a single lane of an ABI™ 377 DNA sequencer for analysis.

The samples obtained from the suspect Rottweiler were consistent with multiple saliva stains extracted from the victim's clothing. The suspect Doberman was inconclusive in two samples extracted from the clothing because the peaks were below threshold for reporting. The scientific data was consistent with the eyewitness report as the Doberman was seen to attack only the woman's head and therefore, failed to leave a testable quantity of DNA on the clothing. The defendants in this case pled because of the strength of the DNA evidence and this case did not go to court. The Rottweiler was euthanized and the Doberman donated to a police department for police training.

