

**THE OCCURRENCE OF INHERITED ANOMALOUS ALLELES IN THE SHORT TANDEM REPEAT
LOCI D16S539 AND D5S818**

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When a mutation occurs in the primer binding regions of Short Tandem Repeat Loci (STRs), the result may appear as a less intense band. A family case study revealed that an allele of less intensity has been passed down three generations. In two other cases, less intense alleles also appeared to be genetically inherited.

In this study, we plan to investigate the visibility of these anomalous alleles through serial dilution and peak height analysis. Sequencing of the study samples may be performed if time allows.

The Polymerase Chain Reaction (PCR) process allows minute amounts of template to be amplified. A concerning issue of anomalous alleles is their potential for dropout or falling below the threshold of detection. A mistype of the DNA profile may result from the inability to detect these weaker bands. Awareness of this phenomenon may aid researchers in obtaining more accurate profiles in forensic and paternity applications.