

**ANALYSIS AND INTERPRETATION OF SHORT TANDEM REPEAT THREE-BANDED ALLELE PATTERN AT THE D7S820 LOCUS**

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The Serology/DNA Section, Forensic Division of the Department of Chemistry Malaysia have validated and implemented analysis of short tandem repeat (STR) sequences on casework using the fluorescently tagged STR alleles using the Applied Biosystems 3100 Capillary DNA analyzer. Recently the laboratory received as items of evidence in a murder case, several hairs and a blood-stained towel recovered from the scene of the crime. DNA analysis was carried out using the Applied Biosystems Identifiler kit. The genetic profile was found to match that of the victim at all sixteen loci. Within this profile a three-banded allele pattern was observed at the D7S820 locus, both in the hairs, bloodstains and the victim's reference blood sample.. Confirmation of this phenomenon was accomplished by amplifying the extracted DNA from the hairs, bloodstain and reference blood sample using the Powerplex 16 kit by Promega. The same three-banded allele was observed at this locus.