

ALLELIC FREQUENCY OF SELECTED SHORT TANDEM REPEATS (STR) LOCI IN A RANDOM SAMPLE OF KERALA POPULATION

T.J. Rasool, Sindhu S. & Bindu Asokan

Rajiv Gandhi Center for Biotechnology, Trivandrum-14, India



Kerala represents a multi ethnic, and multi cultured population in the southern corner of India where consanguineous marriages are prevalent by custom. Of late, the need for solving disputed paternity is increasing due to many reasons. The Rajiv Gandhi Center for Biotechnology, Trivandrum initiated the DNA fingerprinting using commercially available STR kits for solving cases referred by family courts and government agencies. However the frequency of any of the STR loci is not available for Kerala population.

Hence a total of one hundred and twenty chromosomes from unrelated individuals covering all the major religious groups and castes were screened using the CTT kit of Promega and two loci, i.e. Human thyroxin hydroxylase gene (TH01) and Human thyroxin peroxidase gene (TPOX) were scored. The TH01 locus exhibited a heterozygosity of 72% whereas a heterozygosity of 68.85% was observed for the TPOX locus. At the TH01 locus the allele with 9 repeats were the most frequent, whereas alleles with 11 and 5 repeats could not be detected. At the TPOX locus the alleles with 11 repeats show a very high frequency of 0.46 as against the total absence of repeats 6,7 and 13.

