

FOR THE RECORD

*Tan Chin Teck,² B.Sc.; Sam Choon Kook,² Ph.D.; Nada Badruddin,¹ B.Sc.;
S. Panneerchelvam,¹ M.Sc.; and M. N. Norazmi,¹ Ph.D.*

Autosomal STR Polymorphism in Sikh Population of Peninsular Malaysia*

POPULATION: Random Sikh population, Malaysia

KEYWORDS: forensic science, DNA typing, database, Malaysia, population genetics

Buccal swabs were collected from random ethnic Sikh individuals. Sikh population is a distinct group in the Malaysian Indian population of Peninsular Malaysia. DNA was extracted by simple salting out procedure (1). Using STR multiplex primer kits, Promega Geneprint™ (CTT, FFv and STR III) and following the manufacturer's guidelines 10 ng of DNA was PCR amplified. Allele frequencies were calculated from the numbers of each genotype by gene count method. The randomness of the population was ascertained by subjecting the data to Chi-square test. No deviations from Hardy-Weinberg equilibrium were observed. Heterozygosity and discrimination power were calculated as per the methods already reported (2–4). The allelic distribution in the Sikh population of Malaysia is compared with the Tamil population, which is another sub-population group of Malaysian Indian population in peninsular Malaysia (5).

¹ School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.

² Institute of Biological Sciences (Genetics), University of Malaya, 50603 Kuala Lumpur, Malaysia.

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The complete dataset is available to any interested party at www.ppsk.usm.my.

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Additional information and reprint requests:
S. Panneerchelvam, M.Sc.
School of Health Sciences
Universiti Sains Malaysia
16150 Kubang Kerian
Kelantan, Malaysia

TABLE 1—Allele frequencies for 9 STR loci of Sikh population in Malaysia.

Allele	CSFIPO (n = 109)	TPOX (n = 109)	THO1 (n = 109)	F13A01 (n = 109)	FESFPS (n = 109)	vWA (n = 109)	D16S539 (n = 109)	D7S820 (n = 109)	D13S317 (n = 109)
3,2	...	...	...	0.1330	...	...	...	...	...
4	...	...	...	0.0917	...	...	...	...	...
5	...	...	...	0.3486	...	...	...	...	...
6	...	...	0.2615	0.1972	...	...	...	0.0046	...
7	...	0.0138	0.1422	0.1697	0.0046	...	...	0.0138	...
8	...	0.4404	0.1330	0.0046	0.0092	...	0.0550	0.2523	0.1789
9	0.0138	0.1468	0.2339	...	0.0046	...	0.1514	0.1239	0.0780
9,3	...	...	0.1881	...	...	...	...	...	...
10	0.2064	0.1101	0.0413	...	0.2615	...	0.1330	0.2294	0.0459
11	0.2890	0.2523	...	...	0.3899	...	0.3028	0.1835	0.2798
12	0.4083	0.0367	...	...	0.2706	0.0046	0.2202	0.1697	0.2890
13	0.0734	...	...	...	0.0459	0.0092	0.1101	0.0229	0.1009
14	0.0046	...	...	0.0046	0.0138	0.1193	0.0275	...	0.0183
15	0.0046	...	...	0.0138	...	0.0963	...	...	0.0092
16	...	...	...	0.0367	...	0.2202	...	...	...
17	...	...	...	...	...	0.3073	...	...	...
18	...	...	...	...	...	0.1881	...	...	...
19	...	...	...	...	...	0.0459	...	...	...
20	...	...	...	...	...	0.0092	...	...	...
H	81.66	84.86	80.19	80.32	76.78	89.54	93.72	92.71	90.00
PE	0.4843	0.4937	0.6058	0.5860	0.4673	0.6027	0.5872	0.4862	0.5886
PD	0.8566	0.8465	0.9265	0.9199	0.8646	0.9271	0.9445	0.9112	0.9364
Chi	1.7182	8.8579	6.2850	8.4454	5.5832	7.0524	6.2314	11.0373	9.2823
(<i>p</i> < 0.05)	(df 8)	(df 7)	(df 9)	(df 10)	(df 6)	(df 13)	(df 12)	(df 11)	(df 11)
CDP	0.9999999996								

H: Heterozygosity; PE: Power of exclusion; PD: Power of discrimination; Chi: Chi square; CDP: Cumulative discrimination power.