FOR THE RECORD

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Genetic Data for Six STR Loci in Valparaiso Population (Chile)*

POPULATION: Valparaiso City, Chile

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All population samples were derived from elementary schools of Valparaiso city, Chile. None specific racial designations were suited. In order to know the allelic frequencies of the loci, CSF1PO, TH01, TPOX, D16S539, D7S820, D13S317 we sampled 193 thirteen-years-old children, attending elementary schools in the city of Valparaiso-Chile. All the parents of these children signed an informed consent letter. This sample represents different socio-economic levels in the city. The stratification was determined with a survey (1). DNA was extracted from blood samples using Chelex ^{TM} 100 resin method (2). Amplification of the six loci was performed according to the manufacturer's recommendation (3) and the fragments resolved by high-resolution polyacrilamide electrophoresis, followed by silver staining. Rh haplotype were also determined and used to calculate Amerindian admixture in the sample. Gene frequencies and observed heterozygosity were calculated by simple counting. Possible departure of Hardy Weinberg equilibrium (HWE) was determined, computing expected genotypic frequencies under random mating using the algorithm by Levene (1949), and perform Chi-square test (4). Burrows' composite measure of linkage disequilibria between pairs of loci and chi-square test for significance was performed (5). Power of exclusion and discrimination were calculated as previously defined (6). Eight-seven percent of subjects of the sample belong to medium and low medium socio-economic levels. The Amerindian admixture is 57%. Allelic frequencies and observed heterozygocity for the six loci are shown in Table 1. The CSF1PO, TP0X and D16S539 loci show a departure from the Hardy Weinberg equilibrium (Table 1). We found linkage disequilibrium between the allele 7 of CSF1PO loci and the allele 14 of the D13S317 loci. Both alleles share a low frequency in the sample and a very low frequency in the world population (3). The power of exclusion, matching probability and typically paternity index for the six loci are 0.9931, 1 in $1,76 \times 10^6$ and 131,88, respectively. The power of exclusion and the typically paternity index was larger than the reported previously in the USA Hispano-American population (0.9879 and 73.22 respectively, 3). The difference in these parameters compared with the USA Hispano-American population is probably due to the larger heterozygosity of our sample.

Names of each locus typed; CSF1PO (HUMCSF1PO, Human c-fms proto-oncogene for CSF-1 receptor gene), TH01 (HUMTH01, Human tyrosine hydroxylase gene), TPOX (HUMT-POX, Human thyroid peroxidase gene), D16S539 (NA), D7S820 (NA), D13S317 (NA).

The complete dataset is available to any interested party at www.bibliotecasuv.cl/BibliotecasUV/Temporal/tabla%201%20paper%20JFS.xls.

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TABLE 1—*Allelic frequencies; total homozygotes, heterozygotes and subjects; expected and observed heterozygocity and p value of Chi-square test for departure of HWE.*

	Alleles	Loci					
		CSF1PO	TPOX	TH01	D16S539	D7S820	D13S317
Allelic Frequencies	6	0	0	0.295	0	0	0
	7	0.003	0.003	0.233	0	0.021	0
	8	0.003	0.453	0.104	0.028	0.093	0.109
	9	0.070	0.070	0.153	0.155	0.083	0.158
	9.3	0	0	0.150	0	0	0
	10	0.313	0.047	0.065	0.137	0.215	0.054
	11	0.251	0.332	0	0.280	0.355	0.212
	12	0.290	0.088	0	0.272	0.189	0.228
	13	0.065	0.008	0	0.117	0.041	0.111
	14	0.005	0	0	0.010	0	0.119
	15	0	0	0	0	0.003	0.008
Total Homozygotes		34	71	34	51	43	34
Total Heterozygotes		159	122	159	142	150	159
Total subjects		193	193	193	193	193	193
Observed Heterozygocity		0.753	0.547	0.783	0.66	0.755	0.8019
Expected Heterozygocity		0.749	0.677	0.792	0.787	0.761	0.8297
χ^2		46.913	23.539	13.927	34.689	17.781	30.186
p-value		0.0009*	0.0089*	0.5311	0.0305*	0.6628	0.3544

* Statistically significant $p < 0.05$.