For the Record

Allele Frequencies for the COFILER™ STR Loci in the Canadian Caucasian and Canadian First Nations Populations

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Populations: Canadian Caucasians were comprised of individuals from Edmonton and Vancouver; three separate Canadian First Nations databases were derived from Northern Ontario/Ojibwa, Saskatchewan Cree, and British Columbia Salishan individuals

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Blood samples from 79 individuals from Edmonton, 85 individuals from Vancouver, 128 individuals from Northern Ontario, 104 individuals from Saskatchewan, and 104 individuals from Salishan were provided from anonymous residents of Canada who were blood donors participating in either clinical research studies or blood donor clinics. DNA extraction was performed according to established RCMP protocols (1). PCR amplification was performed using the AmpFℓSTR Cofiler™ PCR Amplification Kit (Perkin-Elmer, Foster City, California) following established RCMP protocols (1) with a reduced PCR amplification reaction volume of 5 μL. The amplified products were detected using the 377 Sequencer (Perkin-Elmer, Foster City, California). Data were analyzed using the GenePop program (2) for Hardy-Weinberg equilibrium, linkage equilibrium, and population differentiation tests. From the group of tests done on each population for each locus, the Bonneferonni correction criterion was invoked and no deviation from Hardy-Weinberg or pairwise linkage equilibrium was noted. Amalgamation of the Edmonton and Vancouver populations into a single data set was possible, with no deviation from Hardy-Weinberg or pairwise linkage equilibrium when combined.

The complete data are available to any interested researcher at the following world wide web site URL: http://www.csfs.ca/databases/index.htm.

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References

1. RCMP/Biology Section Methods Guide, 1998.
2. Raymond M, Rousset F. GENEPOP (version 1.2): Population genetics software for exact tests and ecumenicism. J Heredity 1995;86:248–9.

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Locus: D3S1358

Allele	Caucasian (N = 79 Edmonton individuals + 85 Vancouver individuals)	Northern Ontario (N = 128 individuals)	Saskatchewan (N = 104 individuals)	Salishan (N = 104 individuals)
12	0.003	0.000	0.000	0.000
13	0.006	0.004	0.000	0.000
14	0.134	0.078	0.048	0.053
15	0.290	0.383	0.423	0.519
16	0.229	0.477	0.438	0.298
17	0.162	0.020	0.063	0.101
18	0.162	0.039	0.024	0.029
19	0.015	0.000	0.005	0.000
P (exact test)*	0.226	0.095	0.090	0.029

(*continues*)

Locus: D16S539

Allele	Caucasian (N = 79 Edmonton individuals + 85 Vancouver individuals)	Northern Ontario (N = 128 individuals)	Saskatchewan (N = 104 individuals)	Salishan (N = 104 individuals)
8	0.015	0.000	0.000	0.019
9	0.128	0.098	0.082	0.308
10	0.061	0.125	0.154	0.082
11	0.311	0.352	0.313	0.341
12	0.299	0.309	0.351	0.183
13	0.159	0.109	0.096	0.067
14	0.024	0.000	0.005	0.000
15	0.003	0.008	0.000	0.000
P (exact test)*	0.560	0.968	0.960	0.332

Locus: TH01

Allele	Caucasian (N = 79 Edmonton individuals + 85 Vancouver individuals)	Northern Ontario (N = 128 individuals)	Saskatchewan (N = 104 individuals)	Salishan (N = 104 individuals)
5	0.009	0.000	0.000	0.000
6	0.201	0.137	0.216	0.067
7	0.201	0.688	0.514	0.558
8	0.104	0.016	0.034	0.029
9	0.162	0.012	0.058	0.043
9.3	0.308	0.148	0.173	0.303
10	0.015	0.000	0.005	0.000
P (exact test)*	0.971	0.063	0.244	0.416

Locus: TPOX

Allele	Caucasian (N = 79 Edmonton individuals + 85 Vancouver individuals)	Northern Ontario (N = 128 individuals)	Saskatchewan (N = 104 individuals)	Salishan (N = 104 individuals)
8	0.534	0.391	0.308	0.500
9	0.119	0.012	0.024	0.010
10	0.046	0.012	0.029	0.010
11	0.253	0.398	0.423	0.293
12	0.049	0.184	0.216	0.188
13	0.000	0.004	0.000	0.000
P (exact test)*	0.736	0.106	0.840	0.262

Locus: CSF1PO

Allele	Caucasian (N = 79 Edmonton individuals + 85 Vancouver individuals)	Northern Ontario (N = 128 individuals)	Saskatchewan (N = 104 individuals)	Salishan (N = 104 individuals)
6	0.000	0.004	0.000	0.000
7	0.000	0.000	0.000	0.005
8	0.006	0.000	0.000	0.000
9	0.024	0.047	0.063	0.043
10	0.265	0.375	0.298	0.255
11	0.320	0.102	0.135	0.106
12	0.308	0.445	0.452	0.505
13	0.052	0.008	0.043	0.087
14	0.018	0.020	0.010	0.000
15	0.006	0.000	0.000	0.000
P (exact test)*	0.523	0.085	0.367	0.776

Locus: D7S820

Allele	Caucasian (N = 79 Edmonton individuals + 85 Vancouver individuals)	Northern Ontario (N = 128 individuals)	Saskatchewan (N = 104 individuals)	Salishan (N = 104 individuals)
7	0.018	0.000	0.005	0.000
8	0.162	0.023	0.139	0.130
9	0.131	0.000	0.038	0.063
10	0.262	0.211	0.288	0.154
11	0.250	0.508	0.308	0.442
12	0.128	0.199	0.178	0.183
13	0.046	0.059	0.034	0.029
14	0.003	0.000	0.010	0.000
P (exact test)*	0.994	0.268	0.086	0.024

* P (exact test) based on 5000 dememorization steps, 1000 batches and 1000 iterations per batch using the GenePop program (2).