

FOR THE RECORD

Allele Frequencies for Nine STR Loci in African-American, Chinese, Vietnamese, and Bangladesh Populations

S. Borys, M.Sc.,¹ A. Eisenberg, Ph.D.,²
G. Carmody, Ph.D.³ and R. Fourney, Ph.D.¹

Populations: African-American, Chinese, Vietnamese, and Bangladesh

Bloodstained FTA™ collection cards (Fitzco, Minneapolis, Minnesota) from 151 unrelated individuals of African-American descent were obtained from the University of North Texas Health Science Center, Fort Worth, Texas. Bloodstained FTA™ collection cards consisting of 50 unrelated individuals for each of Chinese, Vietnamese and Bangladesh ethnicity were commercially ob-

¹ Corresponding Author (Ron Fourney): RCMP Central Forensic Laboratory, DNA Methods and Data Base, P.O. Box 8885, 1200 Vanier Parkway, Ottawa, Ontario, K1G 3M8.

² University of North Texas Health Science Center, 3500 Camp Bowie Blvd., Fort Worth, Texas 76107.

³ Department of Biology, Carleton University, Ottawa, Ontario, K1S 5B6.

tained from Helix Biotech, Richmond, British Columbia. DNA was isolated from the FTA™ collection cards using the rapid FTA purification procedure according to established RCMP protocols (1). PCR amplification was performed using the AmpF/STR Profiler Plus™ PCR Amplification Kit (Perkin-Elmer, Foster City, California) following established RCMP protocols (1) and a reduced PCR reaction volume of 5 µL with either 23 or 25 amplification cycles. The amplified products were detected using the ABI Prism™ 310 Genetic Analyzer (Perkin-Elmer, Foster City, California). Data were analyzed using the GenePop program (2) and the DNA Type program written by Chakraborty and Zhong. The four populations sets (African-American, Chinese, Vietnamese and Bangladesh) were analyzed for Hardy-Weinberg equilibrium, linkage equilibrium and population differentiation tests. No deviation from Hardy-Weinberg or linkage equilibrium was noted. Amalgamation of the Vietnamese and Chinese sample data into a single data set was possible. In addition, amalgamation of the Vietnamese and Bangladesh populations into a single data set was possible.

The complete data are available to any interested researcher upon request by accessing www.csfs.ca

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.

Locus	Allele	African-American (N=151)	Chinese (N=50)	Vietnamese (N=50)	Bangladesh (N=50)
D3S1358	11	0.007	0.000	0.000	0.000
	12	0.007	0.000	0.010	0.000
	13	0.007	0.020	0.000	0.000
	14	0.093	0.010	0.030	0.030
	15	0.298	0.300	0.350	0.440
	15.2	0.007	0.000	0.000	0.000
	16	0.298	0.380	0.310	0.290
	17	0.215	0.230	0.250	0.140
	18	0.070	0.050	0.050	0.100
	19	0.000	0.010	0.000	0.000
	P(exact test)*	0.346	0.775	0.686	0.680

Locus	Allele	African-American (N=151)	Chinese (N=50)	Vietnamese (N=50)	Bangladesh (N=50)
vWA	11	0.007	0.000	0.000	0.000
	12	0.000	0.000	0.000	0.000
	13	0.023	0.000	0.000	0.000
	14	0.070	0.300	0.220	0.120
	15	0.209	0.030	0.010	0.060
	16	0.275	0.210	0.140	0.150
	17	0.202	0.180	0.290	0.230
	18	0.119	0.190	0.240	0.280
	19	0.079	0.080	0.070	0.110
	20	0.013	0.010	0.030	0.050
	21	0.003	0.000	0.000	0.000
		P(exact test)*	0.670	0.538	0.081

Locus	Allele	African-American (N=151)	Chinese (N=50)	Vietnamese (N=50)	Bangladesh (N=50)
FGA	17	0.003	0.010	0.010	0.020
	18	0.007	0.040	0.020	0.000
	18.2	0.017	0.000	0.000	0.000
	19	0.063	0.090	0.090	0.090
	19.2	0.003	0.000	0.000	0.000
	20	0.050	0.010	0.080	0.100
	21	0.116	0.110	0.090	0.110
	21.2	0.000	0.010	0.010	0.000
	22	0.215	0.200	0.270	0.150
	22.2	0.000	0.000	0.000	0.010
	23	0.166	0.210	0.150	0.190
	23.2	0.000	0.000	0.020	0.000
	24	0.162	0.190	0.100	0.180
	24.2	0.000	0.000	0.010	0.000
	25	0.073	0.070	0.060	0.090
	25.2	0.000	0.010	0.010	0.000
	26	0.079	0.050	0.050	0.050
	27	0.030	0.000	0.030	0.000
	28	0.013	0.000	0.000	0.010
	29	0.003	0.000	0.000	0.000
	P(exact test)*	0.256	0.280	0.488	0.395

Locus	Allele	African-American (N=151)	Chinese (N=50)	Vietnamese (N=50)	Bangladesh (N=50)	
D8S1179	8	0.007	0.000	0.000	0.010	
	9	0.003	0.000	0.000	0.000	
	10	0.023	0.210	0.110	0.190	
	11	0.056	0.160	0.170	0.080	
	12	0.096	0.070	0.160	0.130	
	13	0.179	0.170	0.170	0.180	
	14	0.321	0.140	0.140	0.160	
	15	0.228	0.170	0.140	0.150	
	16	0.073	0.060	0.100	0.090	
	17	0.013	0.020	0.010	0.010	
		P(exact test)*	0.156	0.913	0.147	0.077

Locus	Allele	African-American (N=151)	Chinese (N=50)	Vietnamese (N=50)	Bangladesh (N=50)
D21S11	26	0.007	0.000	0.000	0.000
	27	0.043	0.000	0.020	0.020
	28	0.305	0.080	0.040	0.170
	29	0.175	0.270	0.260	0.260
	29.2	0.000	0.000	0.020	0.000
	30	0.093	0.230	0.260	0.160
	30.2	0.036	0.010	0.010	0.050
	31	0.096	0.070	0.060	0.030
	31.2	0.060	0.100	0.060	0.110
	32	0.023	0.020	0.050	0.000
	32.2	0.070	0.180	0.140	0.120
	33	0.007	0.010	0.020	0.000
	33.1	0.003	0.000	0.000	0.000
	33.2	0.023	0.020	0.050	0.080
	34	0.003	0.000	0.000	0.000
	34.2	0.010	0.000	0.010	0.000
	35	0.036	0.000	0.000	0.000
	36	0.010	0.000	0.000	0.000
	38	0.000	0.000	0.000	0.000
		P(exact test)*	0.581	0.771	0.347

Locus	Allele	African-American (N=151)	Chinese (N=50)	Vietnamese (N=50)	Bangladesh (N=50)	
D18S51	10	0.003	0.000	0.000	0.010	
	11	0.013	0.000	0.000	0.040	
	12	0.040	0.020	0.070	0.040	
	13	0.033	0.140	0.190	0.110	
	13.2	0.010	0.000	0.000	0.000	
	14	0.079	0.180	0.210	0.210	
	14.2	0.007	0.000	0.000	0.000	
	15	0.185	0.310	0.190	0.190	
	16	0.172	0.110	0.160	0.180	
	17	0.159	0.070	0.040	0.070	
	18	0.116	0.050	0.050	0.040	
	19	0.083	0.040	0.020	0.050	
	20	0.070	0.020	0.010	0.010	
	21	0.026	0.030	0.030	0.020	
	22	0.000	0.000	0.010	0.020	
	23	0.003	0.020	0.000	0.010	
	24	0.000	0.010	0.000	0.000	
	25	0.000	0.000	0.020	0.000	
		P(exact test)*	0.696	0.266	0.278	0.153

Locus	Allele	African-American (N=151)	Chinese (N=50)	Vietnamese (N=50)	Bangladesh (N=50)	
D5S818	7	0.003	0.040	0.030	0.000	
	8	0.079	0.000	0.000	0.000	
	9	0.023	0.070	0.070	0.040	
	10	0.066	0.180	0.230	0.140	
	11	0.248	0.290	0.270	0.390	
	12	0.305	0.220	0.200	0.220	
	13	0.262	0.190	0.200	0.200	
	14	0.013	0.000	0.000	0.010	
	15	0.000	0.000	0.000	0.000	
	17	0.000	0.010	0.000	0.000	
		P(exact test)*	0.805	0.951	0.793	0.597

Locus	Allele	African-American (N=151)	Chinese (N=50)	Vietnamese (N=50)	Bangladesh (N=50)	
D13S317	7	0.000	0.000	0.000	0.020	
	8	0.020	0.260	0.380	0.250	
	9	0.026	0.140	0.090	0.110	
	10	0.033	0.180	0.130	0.130	
	11	0.318	0.190	0.230	0.190	
	12	0.434	0.150	0.140	0.230	
	13	0.109	0.060	0.020	0.040	
	14	0.060	0.020	0.010	0.030	
		P(exact test)*	0.986	0.134	0.125	0.207

Locus	Allele	African-American (N=151)	Chinese (N=50)	Vietnamese (N=50)	Bangladesh (N=50)	
D7S820	7	0.003	0.010	0.020	0.030	
	8	0.209	0.140	0.160	0.210	
	8.1	0.000	0.000	0.000	0.010	
	9	0.113	0.030	0.080	0.060	
	9.1	0.000	0.000	0.010	0.000	
	9.3	0.003	0.000	0.000	0.000	
	10	0.358	0.180	0.170	0.270	
	11	0.212	0.380	0.300	0.190	
	12	0.083	0.220	0.180	0.190	
	13	0.017	0.040	0.060	0.040	
	14	0.003	0.010	0.020	0.000	
		P(exact test)*	0.073	0.637	0.384	0.141

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