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FOR THE RECORD

Andrea Berti,[1] *Ph.D.; Filippo Barni*[1]*; Antonino Virgili*[1]*; Giuseppe Iacovacci*[1]*; Cristiano Franchi*[1]*; Cesare Rapone*[1]*; Augusto Di Carlo*[2]*; Carlo M. Oddo,*[3] *M.D.; and Giampietro Lago,*[1] *Ph.D.*

Autosomal STR Frequencies in Afghanistan Population

POPULATION: Afghanian ($n = 130$)

KEYWORDS: forensic science, DNA typing, population genetics, STR frequencies, Afghanistan

Buccal cells were collected by buccal brushes (Sterile Omni Swab, Whatman International Ltd.) from healthy, random Afghanian individuals. DNA was extracted by Chelex method (1). DNA samples were quantified using AmpFℓSTR® Quantifiler (Applied Biosystems, Foster City, CA) by Real time 7000 (Applied Biosystems, Foster City, CA), one nanogram of the samples obtained from the previous phase was amplified by GeneAmp® PCR System 9600 (Applied Biosystems, Foster City, CA). Simultaneous amplifications of 16 STRs loci (multiplexed PCR) were performed by using AmpFℓSTR® Identifiler™ (Applied Biosystems, Foster City, CA) according to the user manual recommendations (2).

The sixteen loci analyzed in this study are D3S1358, vWA, FGA, D8S1179, D21S11, D18S51, D5S818, D13S317, D7S820, TH01, TPOX, CSF1PO, D19S433, D2S1338, D16S539 and the gender determination marker Amelogenin.

STRs typing was performed on 16-capillary ABI Prism® 3100 Genetic Analyzer (Applied Biosystems, Foster City, CA) capillary electrophoresis system according to the user manual and data were analyzed by GeneMapper v. 3.2 Software (Applied Biosystems, Foster City, CA).

[1] Carabinieri Scientific Investigation Department of Rome-DNA Unit. Viale di Tor di Quinto 151, 00191 Rome (Italy).
[2] Carabinieri Scientific Investigation Department of Rome-Fingerprint Unit. Viale di Tor di Quinto 151, 00191 Rome (Italy).
[3] Carabinieri Headquarter-Healt Department. Viale Romania 45, 00197 Rome (Italy).

STRs frequencies were calculated using the statistical software Popgene v. 1.31 (3). Each locus was tested for Hardy-Weimberg equilibrium by the Chi-square test (χ^2).

The complete data are available to any interested researcher upon request.

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Additional information and reprint requests:
Barni Filippo
Ltn. Filippo Barni
Forensic Biologist
Reparto Investigazioni Scientifiche di Roma
Sezione di Biologia
Viale di Tor di Quinto 119, 00191 Rome (Italy)
+39-06-80980317
+39-06-80980336
E-mail: filippobarni@tin.it

TABLE 1—*STR allele frequencies in Afghanistan population (n = 130).*

Allele	D8S1179	D21S11	D7S820	CSF1PO	D3S1358	THO1	D13S317	D16S539
6	...	...	...	...	...	0.2692	...	...
7	...	...	...	0.0077	...	0.1769	0.0077	...
8	0.0308	...	0.1538	...	...	0.1462	0.1615	0.0615
9	...	...	0.0846	0.0308	...	0.1692	0.0846	0.1846
9.3	...	...	...	...	...	0.2308	...	...
10	0.0769	...	0.2231	0.2385	...	0.0077	0.1077	0.0923
11	0.0692	...	0.2846	0.2462	...	...	0.2385	0.3077
12	0.1308	...	0.2000	0.4308	...	...	0.3000	0.2231
12.2	...	...	...	...	...	...	...	...
13	0.2615	...	0.0385	0.0462	...	...	0.0846	0.1154
13.2	...	...	...	...	...	...	...	...
14	0.1923	...	0.0077	...	0.0769	...	0.0154	0.0154
14.2	...	...	...	...	...	...	...	...
15	0.1538	...	0.0077	...	0.3077	...	...	...
15.2	...	...	...	...	...	...	...	...
16	0.0846	...	...	...	0.2769	...	...	...
16.2	...	...	...	...	...	...	...	...
17	...	...	...	...	0.2308	...	...	...
18	...	...	...	...	0.1077	...	...	...
19	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...
20.2	...	...	...	...	...	...	...	...
21	...	...	...	...	...	...	...	...
21.2	...	...	...	...	...	...	...	...
22	...	...	...	...	...	...	...	...
22.2	...	...	...	...	...	...	...	...
23	...	...	...	...	...	...	...	...
23.2	...	...	...	...	...	...	...	...
24	...	...	...	...	...	...	...	...
24.2	...	...	...	...	...	...	...	...
25	...	...	...	...	...	...	...	...
26	...	...	...	...	...	...	...	...
27	...	0.0231	...	...	...	...	...	...
28	...	0.1385	...	...	...	...	...	...
28.2	...	...	...	...	...	...	...	...
29	...	0.2231	...	...	...	...	...	...
29.2	...	...	...	...	...	...	...	...
30	...	0.2154	...	...	...	...	...	...
30.2	...	0.0231	...	...	...	...	...	...
31	...	0.0385	...	...	...	...	...	...
31.2	...	0.0923	...	...	...	...	...	...
32	...	0.0077	...	...	...	...	...	...
32.2	...	0.1308	...	...	...	...	...	...
33	...	...	...	...	...	...	...	...
33.2	...	0.1077	...	...	...	...	...	...
Ho	0.800	0.846	0.7846	0.6615	0.6462	0.8154	0.7385	0.7385
He	0.841	0.851	0.8030	0.6992	0.7637	0.7990	0.8070	0.8018
P	0.649	0.571	0.998	0.294	0.161	0.416	0.985	0.253

Ho: Observed Heterozigosity; He: Expected Heterozigosity; *P*: Probability value of Chi-square test for Hardy-Weimberg equilibrium.

TABLE 1—*Continued*.

Allele	D2S1338	D19S433	vWA	TPOX	D18S51	D5S818	FGA
6	...	...	...	...	...	...	...
7	...	...	...	...	...	0.0154	...
8	...	...	...	0.5308	...	...	...
9	...	...	...	0.0615	...	0.0846	...
9.3	...	...	...	...	...	...	...
10	...	...	...	0.1077	...	0.0615	...
11	...	0.0077	...	0.2154	0.0156	0.2385	...
12	...	0.0615	...	0.0846	0.0781	0.4769	...
12.2	...	...	...	...	...	...	...
13	...	0.2769	...	...	0.1562	0.1231	...
13.2	...	0.0231	...	...	...	...	...
14	...	0.2538	0.0923	...	0.2812	...	...
14.2	...	0.0846	...	...	...	...	...
15	...	0.1000	0.0692	...	0.1250	...	...
15.2	...	0.1077	...	...	...	...	...
16	0.0154	0.0615	0.2846	...	0.1250	...	...
16.2	...	0.0231	...	...	...	...	...
17	0.0923	...	0.3000	...	0.0781	...	...
18	0.1692	...	0.1615	...	0.0547	...	0.0231
19	0.1923	...	0.0692	...	0.0469	...	0.0769
20	0.0846	...	0.0154	...	0.0234	...	0.1000
20.2	...	...	...	...	...	...	0.0154
21	0.0231	...	0.0077	...	...	...	0.1154
21.2	...	...	...	...	...	...	...
22	0.0462	...	...	...	0.0156	...	0.0923
22.2	...	...	...	...	...	...	...
23	0.1154	...	...	...	...	...	0.2385
23.2	...	...	...	...	...	...	...
24	0.1000	...	...	...	...	...	0.2000
24.2	...	...	...	...	...	...	...
25	0.1615	...	...	...	...	...	0.1077
26	...	...	...	...	...	...	0.0308
27	...	...	...	...	...	...	...
28	...	...	...	...	...	...	...
28.2	...	...	...	...	...	...	...
29	...	...	...	...	...	...	...
29.2	...	...	...	...	...	...	...
30	...	...	...	...	...	...	...
30.2	...	...	...	...	...	...	...
31	...	...	...	...	...	...	...
31.2	...	...	...	...	...	...	...
32	...	...	...	...	...	...	...
32.2	...	...	...	...	...	...	...
33	...	...	...	...	...	...	...
33.2	...	...	...	...	...	...	...
Ho	0.8923	0.8000	0.8615	0.5846	0.7812	0.5385	0.7538
He	0.8731	0.8278	0.7906	0.6544	0.8535	0.6947	0.8587
P	0.907	0.415	0.977	0.269	0.348	0.170	0.164

Ho: Observed Heterozigosity; He: Expected Heterozigosity; *P*: Probability value of Chi-square test for Hardy-Weimberg equilibrium.