

FOR THE RECORD

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Allele Frequencies for Fifteen STR Loci in Guinea-Bissau Population

POPULATION: Guinea-Bissau population, ethnical groups: Balanta, Beafada, Cassanga, Fula, Mancanha, Mandinga, Manjaco, Nalú, Papel, $n = 92$

KEYWORDS: forensic science, DNA typing, population genetics, Occidental Africa, Guinea-Bissau population, D8S1179, D21S11, D7S820, CSF1P0, D3S1358, TH01, D13S317, D16S539, D2S1338, D19S433, vWA, TPOX, D18S51, D5S818, FGA

The ethnical variability is probably the most important characteristic of Guinea-Bissau population, in which 99% of the individuals constitute African ethnical groups, and European and mulatto are less than 1% (1).

Bloodstains were obtained from 92 unrelated and healthy known African individuals from Guinea-Bissau. The DNA was extracted using the Chelex[®] method (2). PCR amplification of D8S1179, D21S11, D7S820, CSF1P0, D3S1358, TH01, D13S317, D16S539, D2S1338, D19S433, vWA, TPOX, D18S51, D5S818 and FGA loci was performed using the AmpF ℓ STR[®] Identifiler[™] PCR Amplification Kit (Applied Biosystems) following the manufacturer's protocol (3). The amplified fragments were separated and detected using the ABI Prism[®] 310 Genetic Analyzer (PE Applied Biosystems) (4). Typing was made with GeneScan[®] Analysis Software (PE Applied Biosystems) and by comparison with allelic ladders (5). The data were analyzed using the program of statistical analysis Genepop (6). With this program it was confirmed the existence of Hardy-Weinberg equilibrium. Statistical parameters showed high discriminating power of these fifteen loci.

The complete data are available to any interested person upon request by contacting the corresponding author at joanapvp@clix.pt.

References

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TABLE 1—Allele frequencies for fifteen STR loci of Guinea-Bissau population ($n = 92$).

| Allele | D8S1179 | D21S11 | D7S820 | CSF1PO | D3S1358 | TH01 | D13S317 | D16S539 | D2S1338 | D19S433 | vWA | TPOX | D18S51 | D5S818 | FGA |
|----------|---------|--------|--------|--------|---------|--------|---------|---------|---------|---------|--------|--------|--------|--------|--------|
| 6 | | | | | | 0.1087 | | | | | | 0.1304 | | | |
| 7 | | | | 0.0761 | | 0.3098 | | | | | | 0.0272 | | 0.0109 | |
| 8 | | | 0.2228 | 0.0598 | | 0.3315 | 0.0217 | 0.0380 | | | | 0.2011 | | 0.0924 | |
| 9 | | | 0.1413 | 0.0326 | 0.0054 | 0.1522 | 0.0217 | 0.2283 | | | | 0.2174 | 0.0054 | 0.0380 | |
| 9.3 | | | | | | 0.0761 | | | | | | | | | |
| 10 | 0.0054 | | 0.2989 | 0.2065 | | 0.0217 | 0.0163 | 0.1087 | | 0.0054 | | 0.0870 | | 0.0217 | |
| 10.2 | | | | | | | | | | | | | 0.0054 | | |
| 11 | 0.0435 | | 0.2174 | 0.1794 | 0.0054 | | 0.3152 | 0.2554 | | 0.0380 | | 0.3152 | 0.0217 | 0.2011 | |
| 11.2 | | | | | | | | | | 0.0054 | | | | | |
| 12 | 0.0815 | | 0.1033 | 0.3044 | | | 0.4130 | 0.2283 | | 0.1359 | 0.0054 | 0.0163 | 0.0652 | 0.3967 | |
| 12.2 | | | | | | | | | 0.0054 | 0.0380 | | | | | |
| 13 | 0.2554 | | 0.0163 | 0.1250 | 0.0380 | | 0.1848 | 0.1250 | | 0.2663 | 0.0217 | 0.0054 | 0.0707 | 0.2283 | |
| 13.2 | | | | | | | | | | 0.0815 | | | 0.0054 | | |
| 14 | 0.3315 | | | 0.0163 | 0.1250 | | 0.0272 | 0.0109 | | 0.2065 | 0.0870 | | 0.0489 | 0.0109 | |
| 14.2 | | | | | | | | | | 0.0652 | | | 0.0054 | | |
| 15 | 0.2337 | | | | 0.3043 | | | 0.0054 | 0.0054 | 0.0326 | 0.1630 | | 0.1630 | | |
| 15.2 | | | | | | | | | | 0.0870 | | | | | |
| 16 | 0.0435 | | | | 0.3044 | | | | 0.0598 | 0.0109 | 0.2663 | | 0.1467 | | |
| 16.2 | | | | | | | | | | 0.0217 | | | | | |
| 17 | 0.0054 | | | | 0.1630 | | | | 0.0815 | | 0.2391 | | 0.1630 | | |
| 17.2 | | | | | | | | | | 0.0054 | | | | | |
| 18 | | | | | 0.0544 | | | | 0.0543 | | 0.125 | | 0.1467 | | 0.0054 |
| 18.2 | | | | | | | | | | | | | | | 0.0109 |
| 19 | | | | | | | | | 0.1087 | | 0.0598 | | 0.0815 | | 0.0870 |
| 20 | | | | | | | | | 0.0978 | | 0.0272 | | 0.0435 | | 0.0380 |
| 21 | | | | | | | | | 0.2065 | | 0.0054 | | 0.0109 | | 0.0598 |
| 22 | | | | | | | | | 0.1033 | | | | 0.0054 | | 0.1576 |
| 23 | | | | | | | | | 0.0652 | | | | 0.0109 | | 0.2228 |
| 24 | | | | | | | | | 0.1033 | | | | | | 0.1902 |
| 25 | | | | | | | | | 0.0870 | | | | | | 0.0978 |
| 26 | | 0.0054 | | | | | | | 0.0217 | | | | | | 0.0489 |
| 27 | | 0.0163 | | | | | | | | | | | | | 0.0544 |
| 28 | | 0.1576 | | | | | | | | | | | | | 0.0054 |
| 29 | | 0.1685 | | | | | | | | | | | | | 0.0109 |
| 30 | | 0.2446 | | | | | | | | | | | | | 0.0054 |
| 30.2 | | 0.0380 | | | | | | | | | | | | | |
| 31 | | 0.1141 | | | | | | | | | | | | | |
| 31.2 | | 0.0272 | | | | | | | | | | | | | 0.0054 |
| 32 | | 0.0109 | | | | | | | | | | | | | |
| 32.2 | | 0.1359 | | | | | | | | | | | | | |
| 33 | | 0.0054 | | | | | | | | | | | | | |
| 33.2 | | 0.0489 | | | | | | | | | | | | | |
| 34.2 | | 0.0054 | | | | | | | | | | | | | |
| 35 | | 0.0163 | | | | | | | | | | | | | |
| 36 | | 0.0054 | | | | | | | | | | | | | |
| <i>p</i> | 0.9062 | 0.0620 | 0.6079 | 0.6644 | 0.5677 | 0.4926 | 0.4839 | 0.1226 | 0.5965 | 0.4584 | 0.2978 | 0.6441 | 0.3793 | 0.3936 | 0.2931 |
| H | 0.7597 | 0.8501 | 0.7828 | 0.8062 | 0.7681 | 0.7529 | 0.6939 | 0.8015 | 0.8891 | 0.8449 | 0.8173 | 0.7873 | 0.8827 | 0.7394 | 0.8615 |
| PD | 0.9039 | 0.9606 | 0.9189 | 0.9366 | 0.9105 | 0.8999 | 0.8528 | 0.9313 | 0.9778 | 0.9592 | 0.9426 | 0.9236 | 0.9749 | 0.8933 | 0.9662 |
| PE | 0.5400 | 0.7028 | 0.5731 | 0.6230 | 0.5554 | 0.5312 | 0.4422 | 0.6071 | 0.7773 | 0.6976 | 0.6412 | 0.5867 | 0.7639 | 0.5174 | 0.7196 |

NOTE: *p*: Hardy-Weinberg equilibrium exact test; H: heterozygosity.