

Announcement of population data

Y-chromosome STR haplotypes in the Madeira archipelago population

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Abstract

Allele and haplotype frequencies of seven Y-chromosome STR loci were determined from a sample of 95 and 16 unrelated males from Madeira and Porto Santo Islands, respectively. © 2001 Elsevier Science Ireland Ltd. All rights reserved.

Keywords: Haplotypes; Y-chromosome; Madeira Island

Population: Total 111 healthy unrelated volunteer donors from Madeira and Porto Santo with known ancestors until at least the third generation.

DNA extraction: Chelex method.

PCR: According to DYS19, DYS389I and DYS389II, DYS390 and DYS393 [1], DYS391 and DYS392 [2].

Typing: By ABI Prism 310.

Results: Tables 1 and 2.

Analyses of data: Haplotype and gene diversity according to Nei [3].

Other remarks: No significant differences between populations of Madeira and Porto Santo Islands have been

found. A duplication of DYS391 has been detected in three individuals who to their knowledge do not share any common paternal ancestor. However, due to the rarity of the duplication and the low frequency of allele 9, it is predictable that the three individuals share a common paternal ancestor. Haplotypes 24 and 28 are the most frequent ones (13 and 11 individuals), a pattern already found in populations from the Iberian Peninsula [4]. Interestingly, four males bearing haplotype 6, were not previously reported in the Iberian Peninsula [4], from where supposedly the Madeiran population has come, but are found in Northern Europe.¹

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¹ http://ystr.charite.de/index_mk1.html.

Table 1

Allele frequencies and gene diversity value at seven Y-chromosome STR loci in the Madeira Archipelago population^a

Allele	DYS19	DYS389I	DYS389II	DYS390	DYS391	DYS392	DYS393
9	–	–	–	–	0.054	–	–
10	–	–	–	–	0.514	–	–
9/10	–	–	–	–	0.027	–	–
11	–	0.009	–	–	0.369	0.414	–
12	0.009	0.180	–	–	0.036	0.036	0.180
13	0.135	0.640	–	–	–	0.441	0.694
14	0.613	0.153	–	–	–	0.099	0.117
15	0.207	0.018	0.063	–	–	0.009	0.009
16	0.036	–	0.613	–	–	–	–
17	–	–	0.243	–	–	–	–
18	–	–	0.072	–	–	–	–
19	–	–	0.009	–	–	–	–
20	–	–	–	–	–	–	–
21	–	–	–	–	–	–	–
22	–	–	–	0.072	–	–	–
23	–	–	–	0.279	–	–	–
24	–	–	–	0.550	–	–	–
25	–	–	–	0.081	–	–	–
26	–	–	–	0.018	–	–	–
h ^b	0.567	0.539	0.561	0.613	0.600	0.628	0.477

^a $n = 111$.^b h: gene diversity value.

Table 2

A list of 73 Y-chromosome STR haplotypes detected in 111 unrelated males in Madeira Archipelago population

H ^a	DYS19	DYS389I	DYS389II	DYS390	DYS391	DYS392	DYS393	n ^b
1	12	13	16	24	11	14	13	1
2	13	12	19	24	10	11	14	1
3	13	13	16	24	9	11	13	1
4	13	13	16	24	10	11	13	1
5	13	13	16	24	11	11	13	1
6	13	13	17	23	10	11	13	4
7	13	13	17	23	9/10	11	13	3
8	13	14	15	24	9	11	13	1
9	13	14	16	23	9	11	13	1
10	13	14	16	24	9	11	13	2
11	14	11	16	22	11	12	13	1
12	14	12	15	24	10	13	13	1
13	14	12	16	22	10	11	13	1
14	14	12	16	23	10	11	13	3
15	14	12	16	25	10	13	14	1
16	14	12	17	24	11	14	12	1
17	14	13	15	23	10	11	13	1
18	14	13	15	24	10	13	13	1
19	14	13	16	22	10	11	12	1
20	14	13	16	23	10	13	13	1
21	14	13	16	23	11	11	12	2
22	14	13	16	23	11	13	13	1
23	14	13	16	23	11	14	13	1
24	14	13	16	24	10	13	13	13
25	14	13	16	24	10	13	14	1
26	14	13	16	24	11	11	14	1
27	14	13	16	24	11	13	12	1
28	14	13	16	24	11	13	13	11
29	14	13	16	24	11	13	14	2

Table 2 (Continued)

H ^a	DYS19	DYS389I	DYS389II	DYS390	DYS391	DYS392	DYS393	n ^b
30	14	13	16	24	11	14	12	1
31	14	13	16	25	11	13	12	1
32	14	13	16	25	11	14	13	1
33	14	13	17	23	9	11	13	1
34	14	13	17	23	10	11	13	2
35	14	13	17	23	11	11	12	1
36	14	13	17	24	10	14	13	1
37	14	13	17	24	11	13	13	2
38	14	13	17	25	12	13	13	1
39	14	13	17	26	10	13	13	1
40	14	13	17	26	12	14	13	1
41	14	13	18	24	11	13	13	1
42	14	13	18	24	12	13	13	1
43	14	14	15	25	11	11	13	1
44	14	14	16	23	10	15	12	1
45	14	14	16	24	10	13	13	2
46	14	14	16	24	11	13	13	1
47	14	14	17	23	10	11	12	1
48	14	14	17	23	10	11	13	1
49	14	15	17	23	10	14	12	1
50	15	12	15	25	10	14	13	1
51	15	12	16	24	10	11	12	2
52	15	12	16	24	10	11	13	1
53	15	12	16	25	10	14	13	1
54	15	12	17	23	10	11	12	2
55	15	12	17	24	11	13	13	2
56	15	12	18	23	11	11	15	1
57	15	13	16	22	10	13	12	1
58	15	13	16	23	11	13	13	1
59	15	13	16	24	10	11	12	1
60	15	13	16	24	12	13	13	1
61	15	13	17	24	11	11	12	1
62	15	13	18	22	10	11	13	1
63	15	13	18	24	10	11	12	1
64	15	14	15	22	10	11	14	1
65	15	14	16	24	10	14	12	1
66	15	14	16	24	11	12	14	1
67	15	14	16	25	10	11	13	1
68	15	14	18	22	11	11	14	1
69	15	15	16	24	11	13	13	1
70	16	12	17	22	10	11	14	1
71	16	12	18	23	10	12	14	1
72	16	13	16	23	11	12	14	1
73	16	14	18	25	10	11	14	1
Genotype diversity								0.975

^a H: haplotype.^b n = individuals observed for each haplotype.

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