

Y-STR haplotype diversity of a native population of Cabo Verde living in Lisboa

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Cabo Verde is an African archipelago located in Atlantic Ocean. Historically, native population of Cabo Verde is the result of an admixture of Caucasian Portuguese and European colonizers and also African slaves. As well as it occurs all over Europe, in Portugal and particularly in Lisboa, immigrant populations are clearly increasing. According to Portuguese foreign affair services, in 2010 the number of immigrants from Cabo Verde living in Lisbon was up to 34234. Y-chromosome, male specific and constitutively haploid, is one of the smallest human chromosomes with an average size of 60 million base pairs that largely escapes to meiotic recombination. Combinations of allelic variants of markers along the chromosome, defined as haplotypes, pass intact from generation to generation. They change only by mutation and so preserve a record of their history. This unique biology has led to the widespread use of genetic markers in determining patrilineal relationships and haplogroups within and between populations, with application in population studies and which provides a powerful discrimination tool for routine forensic applications. The main goal of this study is characterize the patrilineal/Y-haplotype. We studied a sample of 50 unrelated and healthy male individual's natives of Cabo Verde, actually living in Lisboa and undergoing forensic investigations in INMLCF. We studied the markers included in the European minimal haplotype recommended by International Y-STR User Group for identity testing, plus markers recommended by Scientific Working Group on DNA analysis methods and also DYS448, DYS456, DYS458, DYS635 e GATA H4, to increase haplotype and gene diversity.

Biography

Rodolfo Marques-Santos completed his M.Sc. degree in Forensic Sciences from Sheffield Hallam University (UK) at the age of 22. He is a voluntary investigator with equivalent functions to the superior specialist in Legal Medicine in the Genetic and Forensic Biology Group in the INMLCF, Lisbon, Portugal. He has published scientific papers as author and co-author, research on population genetics. He is an Integrated Investigator in the Forensic Anthropology Unit of CENCIFOR.

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