



## Re-Examining the Out-of-Africa Theory and the Origin of Europeoids (Caucasoids). Part 2. SNPs, Haplogroups and Haplotypes in the Y Chromosome of Chimpanzee and Humans

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### ABSTRACT

Our consideration of human haplogroups, and our analysis of the dynamics of the Y-chromosome nucleotide flow from primates to humans during the evolution of genus Homo has shown that a common ancestor of the majority of present day human males, both African and non-African, lived approximately 160,000 years ago. The haplogroup of this common ancestor has been identified as the  $\alpha$ -haplogroup, which is equivalent or close to haplogroups A1/A1b in the current phylogeny. The archaic lineages (currently summarily designated A0) descend from an ancestor who lived no later than 180,000 years ago, and probably much earlier. The  $\alpha$ -haplogroup and the A0 lineages have significantly different nucleotide patterns, and they certainly did not descend one from another. Furthermore, our research points up the areas of mutations in Y-chromosome in *H. sapiens*, which allows us to use chimpanzee MSY (the male-specific region of the Y-chromosome) as a proxy for genus Homo's common  $\alpha$ -haplogroup ancestor. When we studied slow mutating 16-marker haplotypes, we discovered that chimpanzees and present day humans had a common ancestor 5.5  $\pm$  0.9 million years before the present. It is clear that, when they are compared to loci in other primates, such as gorillas, orangutans, and macaques, many human Y-chromosome loci have been conserved from our common ancestor. Results of our analysis of haplotypes, conserved (ancestral) nucleotides, and SNPs suggest that there is no reason to believe that ancestors of non-Africans ( $\beta$ -haplogroup, i.e. haplogroup BT and its downstream haplogroups) descended from haplogroups A0, A1a, or any other African haplogroup. The data are adequately described by a model which shows that the African lineages and non-African lineages diverged from the  $\alpha$ -haplogroup approximately 160,000 years before the present and that the Y-chromosomes of the two groups have evolved independently (in terms of Y-chromosome) since then. We have no indication of where the common ancestor of the  $\alpha$ -haplogroup lived; he could just as easily have lived in Europe, in Asia, or in the Middle East, as in (less likely) Africa. We believe that all the presuppositions posited in support of the Out-of-Africa hypothesis fail to hold up under simple scrutiny. This study shows that the Out-of-Africa hypothesis has not been adequately substantiated. The common assertion that "anatomically modern humans came out of Africa some 70,000 years ago" has never been convincingly calculated or determined otherwise; our research suggests that it is incorrect.

### KEYWORDS

Y-Chromosome; Mutations; Haplotypes; Haplogroups; Primates; Chimpanzees, SNP; Out-of-Africa

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