

**6th BALKAN MEETING ON HUMAN GENETICS (BMHG 2004)  
THESSALONIKI GREECE, AUGUST 28 - 31, 2004**

**L.22 THE DISTRIBUTION OF Y-CHROMOSOME HAPLOGROUPS IN  
THE THREE MAIN ETHNIC GROUPS OF BOSNIA AND  
HERZEGOVINA**

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Archaeological findings indicate that the territory of the present Bosnia and Herzegovina was continuously settled since the Palaeolithic. However, two historical events could have had a major impact on the genetic continuity of local populations: the arrival of different Slavic clans during the 6<sup>th</sup> and 7<sup>th</sup> century and the arrival of the Turks in the 15<sup>th</sup> century. To determine whether the cultural diversity of the current populations of Bosnia and Herzegovina is associated with a certain degree of genetic diversity, we have analyzed the Y-chromosomes of 259 unrelated males born in Bosnia and Herzegovina (90 Croats, 83 Serbs and 86 Bosnian Muslims -Bosniacs- sampled at six collecting points and from more than 50 different locations). DNA was extracted from whole blood and 20 Y-chromosomal biallelic markers (*12/2, YAP, M9, M17, M26, M34, M35, M78, M81, M89, M123, M170, M172, M173, M174, M201, M223, M253, M269* and *P37*) were tested through PCR/RFLPs or PCR/DUPLC assays. Almost all of the samples fell into the E, G, J, I and R haplogroups. A particular high frequency was displayed by haplogroup I (Croats ~70%, Bosniacs ~45% and Serbs ~30%), almost exclusively accounted for by its sub-haplogroup I1b\*(P37). Sub-haplogroups I1a(M253) and I1c(M223) were scarce or virtually absent, while I1b2(M26) was not observed at all, thus confirming that it represents a West-European sub-clade of haplogroup I. The R1a(M17) is the prevalent sub-haplogroup of R, as previously observed in other East-European populations. Haplogroups E and J, which are known to mark migrations from the Middle East occurred in Neolithic times, are accounted for mainly by the subclades E-M78 and J-M172. The major differences in the haplogroup distribution between the three ethnic groups are primarily due to the fact that the Croats harbour the highest frequency of I1g I and the lowest frequencies of Hgs E and J.