

A Short Essay about the U152 Haplogroup

January 2010

By Tibor Fehér

(co-admin of the U152 project)

My intention with this brief article is to provide a comprehensive view of the history of people belonging to the U152 positive subgroup of the macro-haplogroup R1b.

First of all, we have to note that **R1b1 haplogroup** itself originated in the Levant approx. 12.000 years ago, at the end of the last Ice Age (Younger Dryas). There were R1b1 people among the first farmers in the Fertile Crescent, most likely belonging to Y-DNA haplogroups J, G and T.

The main subclade of R1b1 is **R1b1b2 (M269)** which is the dominant haplogroup of Western Europe, and due to the colonization, is also dominant in the Americas. According to our present knowledge, R1b1b2 originated still in the Middle East, most likely somewhere between today's Armenia and Israel, approximately 6000 years ago. However, most of the R1b1b2 people left the area before the emergence of the Jewish civilization, i.e. R1b1b2 itself cannot be considered as a Jewish haplogroup, however, some R1b1b2 people who stayed in the Levant played a role in the Jewish ethno genesis.

The main European (and American) subclade of R1b1b2 is called "**Atlantic Modal Haplotype**" and is positive for SNP P310 (aka **L11**). Over 90% of Western European R1b belongs to this L11 subgroup. This L11 group went under a quick demographic expansion in Europe (most likely Central Europe) and split into two main branches, U106 and P312. U106 is usually connected to Germanic or Celto-Germanic, while P312 to Italo-Celtic and Basque cultures, however, we can not say anything sure before systematic SNP testing of the European R1b1b2 population is done. R1b1b2 being Indo-European or pre-Indo-European is still an unsettled issue, and I would not argue for any of these possibilities. I would try to stick to U152 history

U152 is a subgroup of P312 and is concentrated around the Alps. My estimation is that it appeared first approximately 3600 years ago, around 1650 BC. A few things are clear regarding U152 from present results: U152 is the dominant L11 subgroup in Italy, Hungary and South-East France (Provence), while it is also common in Southern Germany, Switzerland and Austria, together with U106. We can not yet assume how common is it in the Balkans, and without the Balkans we cannot say anything sure about its origin.

With its birth around 1600 BC, it seems plausible that the first U152 man lived either in the Tumulus culture (Middle Bronze Age, 1600-1200 BC) in Central Europe or in the Terramare culture (Middle Bronze Age, 1700-1150 BC) in Northern Italy. It is likely that this man already spoke some sort of proto-Italo-Celtic language, however we can not be sure regarding the language phylogeny of some extinct languages (Lepontic, Ligurian) and the role and place of Etruscan in the wider picture.

It can be stated however, that the four main U152 subgroups already separated before the split into proto-Italic and proto-Celtic, thus we can not say that a U152 line is Celtic or Italic based on DNA (at least up to our present knowledge). The four big subgroups of U152 appeared approximately between 1500 and 1000 BC, and are the following:

U152+ L2- DYS 492 = 12: This group seems to be the closest to the original U152 line

U152+ L2- DYS 492 = 14: This group is defined by a yet undiscovered SNP and it has its own subgroup L4.

L2+ L20- This group is the most common U152 branch in Western Europe so far.

L2+ L20+ This group is found from Italy to Scandinavia and England. There are ongoing efforts for connecting it to the Biturges Celtic tribe

Based on the fact that a line of a single man needs some hundred years to grow enough in population to start expansion, we can put the U152 subgroup expansion times after 800 BC, i.e. in Hallstatt and later La Tène times. However, the common equation of U152 with La Tène Celts is rather a guess than well-based scientific theory. To sum up, we need more research and more deep clade tests to decide how the U152 people spread out during prehistoric times. And ancient DNA testing would help even more.

As regards the British Isles, U152 seem to have a frequency lower than 5% of all males, i.e. it is rather rare than we would expect hearing the “Celtic U152” idea. It is also near-completely absent from Ireland, Wales and Scottish Highlands, which is not favoring a Celtic connection. I think we have to admit that we do not know the demographic history of U152 well-enough yet, and that U152 arrival to Britain is just as much possible with La Tene Celts as Roman legionaries or some Anglo-Saxon or Danish settlers who happened to have the U152 gene. I hope more research in the upcoming years will shed some light on these issues.

January 12, 2010

Tibor Fehér, Budapest, Hungary