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*Certificate of Analysis
for
Y Chromosome DNA Testing*

*This certifies that the DNA of:
Jassem Al-Maraghi
has been tested and the following profile was identified:
Haplogroup J1*

(based on the YCC2008 convention)

The sample's nuclear DNA was extracted, amplified and genotyped and then screened by our laboratory for polymorphisms in the non-recombinant part of the Y-chromosome. The resulting DNA signature may be used to identify an individual and his or her direct paternal lineage. The following polymorphisms were reported.

Table 1: The results of Y SNP

	<i>M89</i>	<i>M304</i>	<i>M267</i>
Reference Sequence	C	C	T
Jassem Al-Maraghi	T	G	G

Table 2: The results of Y STR

426	388	389I	389II	390	456	19	385b	385b	458	437	438	448	H4	391	392	393	439	635
11	18	13	30	23	14	15	14	19	18.2	14	10	20	11	11	11	12	11	21

Sample identification:

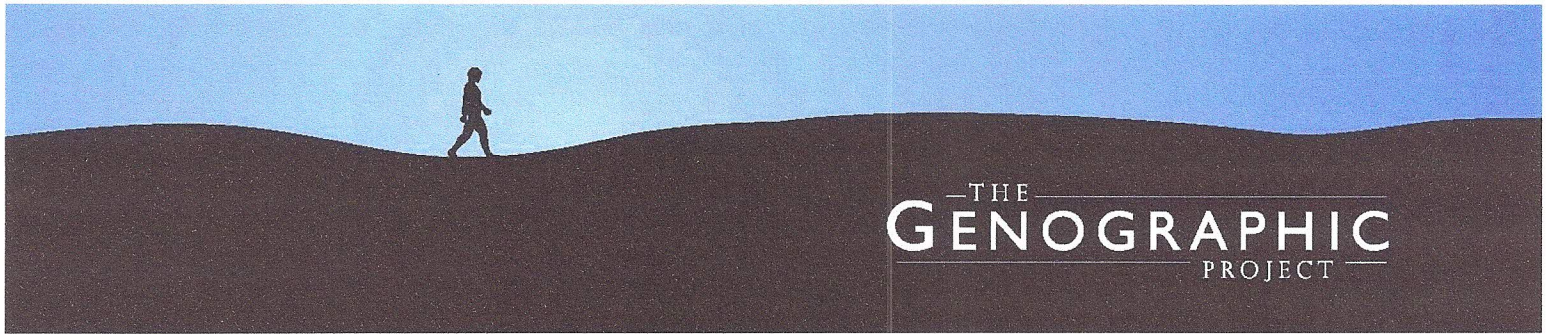
DNA reference number: 6BA20



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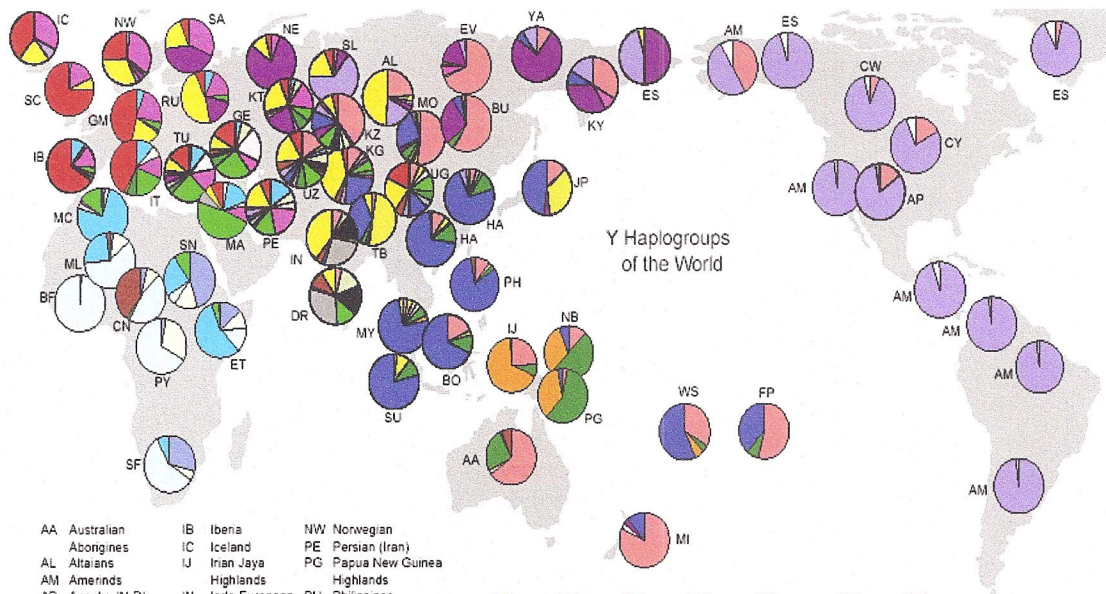


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Y DNA World Haplogroup Map



- | | | |
|---------------------|------------------|---------------------|
| AA Australian | IB Ikena | NW Norwegian |
| AB Aborigines | IC Iceland | PE Persian (Iran) |
| AL Altaians | IJ Irian Jaya | PG Papua New Guinea |
| AM Amerinds | Highlands | |
| AP Apache (N-D) | IN Indo-European | PH Philippines |
| BF Burkina Faso | IT Italy | PY Pygmy |
| BO Borneo | JP Japan | RU Russia |
| BU Buryats | KG Kyrgyzstan | SA Saami |
| CN Cameroon | KT Kazan Tatar | SC Scotland |
| CW Chippeway (N-D) | KY Koryaks | SL Selpups |
| CY Cheyenne | KZ Kazakhstan | SF South Africa |
| DR Dravidian | MA Mideast Arabs | SN Sudan |
| ES Eskimos | MC Morocco | SU Sumatra |
| ET Ethiopia | MI Maori | TB Tibet |
| EV Evenks | ML Mali | TU Turkish |
| FP French Polynesia | MO Mongols | UG Uygurs |
| GE Georgia-Armenia | MY Malaysia | UZ Uzbek |
| GM Germany | NB New Britain | WS Western Samoa |
| HA Han Chinese | NE Nenets | YA Yakuts |

- | | | | | | | |
|-------|---|---|---|-------|-----|-----|
| A | B | C | D | ExE3b | E3b | F |
| G | H | I | J | K | L | M |
| N | O | P | Q | RxR1 | R1a | R1b |
| Other | | | | | | |

The data in this map is supposed to represent the situation before the recent European expansion beginning about 1500 AD. In some cases such as some Native American tribes and the Maori this can be done reliably because STR typing was done. In other cases, especially in America, it is guesswork. The "Other" sectors in America indicate this. Native American groups are labeled by language group as Amerind, Na-Dene (N-D), and Eskimo. F, K, L, and P are in some cases "catchall" groups because some researchers did not use enough markers for a full haplotype determination.

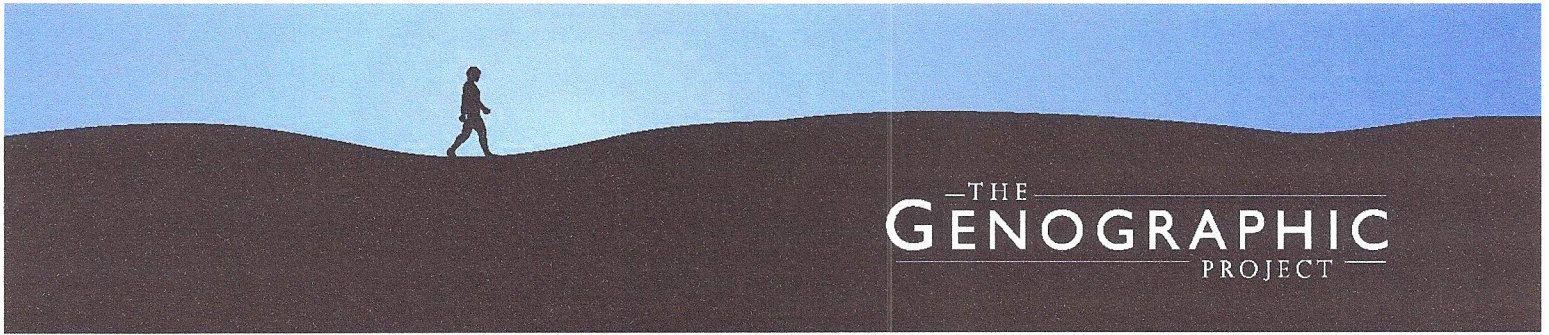
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The M267 haplogroup arose in the southern Fertile Crescent, perhaps in what is now Iraq, about 10,000 years ago. In this post-Ice Age era the region had a very fertile climate, which helped to feed the growth of early agriculture and, with it, the foundations of settled human communities. The first man to exhibit the M267 marker was probably an early agriculturalist. During successive generations, his descendants would carry the lineage through much of the Middle East, the Arabian Peninsula, and North Africa. The M267 lineage was widely dispersed by two major waves of migration. The first occurred some 10,000 years ago during the region's Neolithic period. The homesteading farmers of this era spread out from the Fertile Crescent into the welcoming lands of

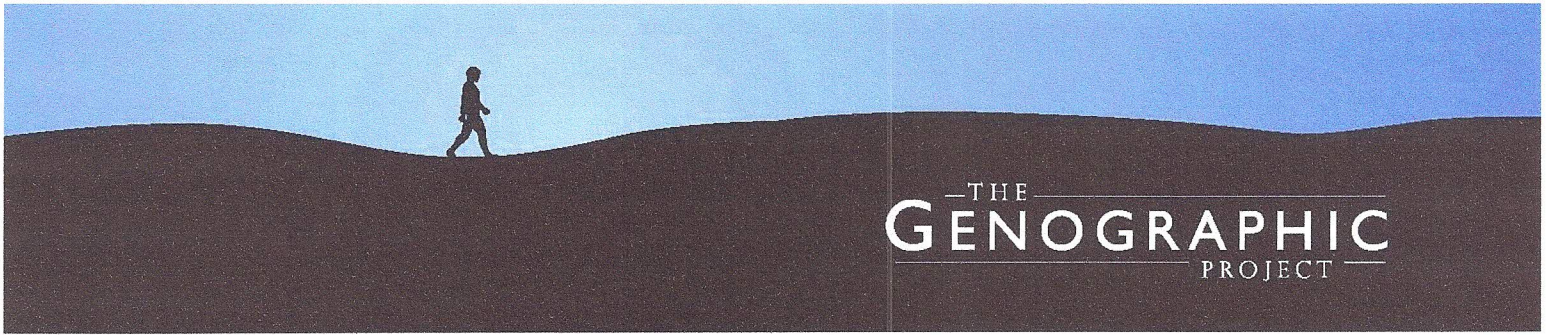
Europe, Ethiopia, and even farther afield. More recently, during the golden age of Islamic expansion, some descendants of the original M267 spread to North Africa and to Europe's Iberian Peninsula. The Moors, North African peoples of Berber and Arab origins, carried both their faith and their culture on conquests of the Iberian Peninsula, northwest Africa, and beyond. Their genetic impact on Spain, however, was relatively small. Modern members of this haplogroup once again live in their highest concentrations near its ancestral birthplace in the Middle East, as well as in Arabia, North Africa, and Ethiopia. M267 is also seen in Mediterranean Europe, though at much lower frequencies.



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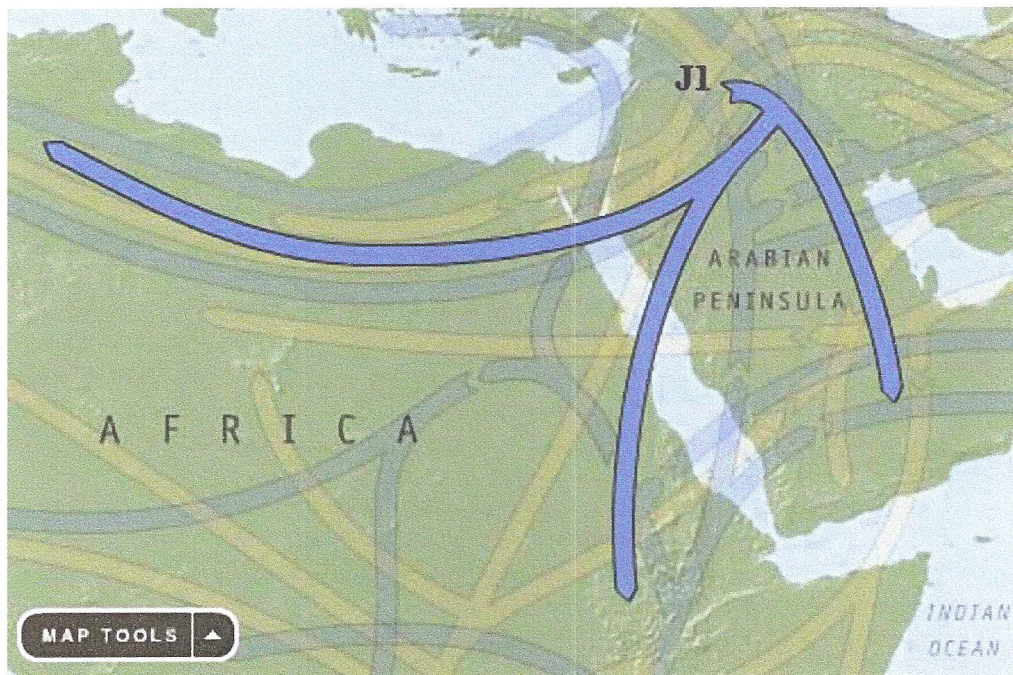


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Haplogroup J1 Migration Pattern



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