

MOTHERLAND - EXPLANATIONS

Y-Chromosome Analysis - hg8

by Dr Mark Jobling

Genetics Department, University of Leicester

What did we do?

You inherited your Y chromosome from your father. He inherited it from his father, who in turn inherited it from his father. So Y chromosomes tell you nothing about your mother's father, your grandmother's father, your maternal grandfather's father etc, but only about your direct paternal lineage.

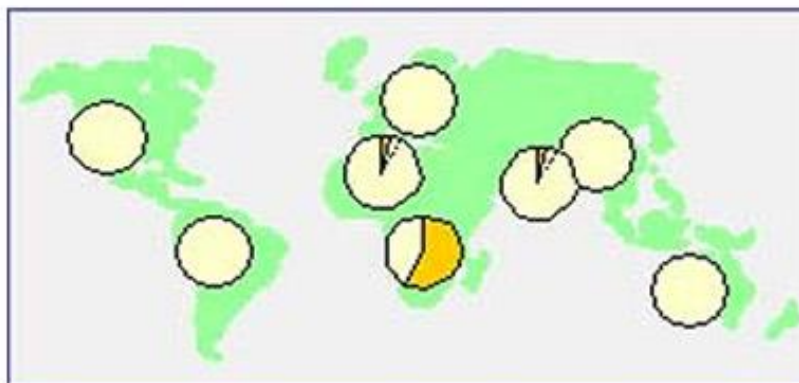
We examined the DNA in your Y chromosome and compared it with databases of other Y Chromosomes to get an idea of where it might have originated - in other words, where your paternal ancestry lies. To do this we look at parts of the Y chromosome that vary between different men. This variation is not connected in any way to health or disease.

One kind of variation changes quite rapidly and allows us to distinguish between most men in a population - it's a bit like a Y chromosome "signature". While these signatures are very discriminating between individuals, they also give us an idea of the origins of a Y chromosome.

The other kind of variation changes very slowly, so there may be large groups of men in a population who share a Y chromosome when it is defined this way - we refer to this as a **haplogroup (hg)**. However, in many cases the haplogroup to which a Y chromosome belongs provides very clear evidence about where it originated.

What can we tell you about the origins of your Y chromosome?

Your Y chromosome belongs to hg8. The map below shows the global distribution of haplogroup 8 chromosomes among indigenous populations.



Global distribution of
haplogroup 8 Y chromosomes

As you can see, hg8 chromosomes are the commonest kind of Y chromosomes in Sub-Saharan Africa, and are also found at lower frequencies in North Africa and the Indian subcontinent. We are confident that your Y chromosome originates in sub-Saharan Africa.

What can't we tell you?

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From the information we have at present about African Y chromosome diversity, we can't say with any certainty which part of Africa your paternal ancestors came from. This is partly because hg8 chromosomes spread rapidly across Africa, accompanying the "Bantu expansion", a movement of people apparently driven by the arrival of agriculture (about 3000 years ago) and later, iron-working, which spread languages of the Bantu family widely. This means that it is hard to distinguish between hg8 chromosomes from different regions of Africa, though this may improve in the future with better databases.

It's important to realise that when we look at your Y chromosome we are getting information about only one of your ancestors - the man who passed his Y chromosome down to you through the generations. You have many ancestors - over 1000 only ten generations back - and we cannot tell you anything about them from the analysis we do. The Y chromosome is only a very small piece of the puzzle.