

Newsletter

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From the Director - Mutation Rate Philosophies

From the [ISOGG Glossary](#): a mutation is "A change in the DNA that occurs spontaneously." As a genetic genealogist, you will become very familiar with the term but it may take some time before you are able to adopt a mutation rate philosophy.

At the 2006 3rd International Conference on Genetic Genealogy, Adrian Williams' showed a PowerPoint slide which stated, "Understanding mutation rates is kinda like trying to nail jello to the wall". I have to agree with that statement 100%! A few years ago, I naively thought that an ISOGG committee could come up with a mutation rate standard. I did not learn until later that we would have better odds of capturing a unicorn than we would in reaching a consensus on mutation rates.

The reason it is so difficult to have just one standard is because there are so many different mutation rate philosophies, as well as other factors. The meaning of the word '[philosophy](#)' in this respect - "the critical study of the basic principles and concepts of a particular branch of knowledge, especially with a view to improving or reconstituting them: the philosophy of science."

For example, many genetic genealogists begin their foray into mutation rates using Family Tree DNA's [FTDNATIP](#) (Family Tree DNA Time Predictor). Two other popular mutation rate tools are Dean McGee's [Y-Utility](#) and Ann Turner's [Mutation Rate Calculator](#). While these tools are a great start for calculating mutation rates they may not provide the same results for everyone based on different factors.

Quite a few scientific studies have been published about mutations and these differing theories factor in to calculating mutation rates. These studies cover a wide variety of hypotheses like how mutations are affected by [proteins](#), [decay law](#), and even [silent' mutations](#). I think you can begin to see what I mean about the unicorn.

For the genetic genealogist, I would recommend reading Charles Kerchner's ["An Overview and Discussion of Various DNA Mutation Rates and DNA Haplotype Mutation Rates. Do the YSTR Haplotypes in some Y Chromosome Male Lines Mutate Faster Than in Other Male Lines?"](#) and Dr. T. Whit Athey's ["Mutation Rates – Who's Got the Right Values?"](#)

-Katherine Borges
ISOGG Director



DNA in the Mainstream
recognition and sightings

Haplogroup J2 sighting on BBC programme "Waking the Dead"

On a recent episode of the British Broadcasting Corporation's (BBC) police drama series "[Waking the Dead](#)" a forensic pathologist comes to the conclusion that [Y-chromosome haplogroup J2](#) must be an indication of the suspect's ethnic origins in Turkey. This is a misleading conclusion because haplogroup J2 is also found in low frequencies throughout Britain and Europe.

The programme is available [online](#) on the BBC website for the next six days but only for residents of the United Kingdom. Americans may be able to view the episode on BBC America or UKTV and on Nine Network for Australians and New Zealanders.



New study: "What's in a name? Y chromosomes, surnames, and the genetic genealogy revolution"

A new scientific study by Turi E. King and Mark A. Jobling recognises the contributions made by genetic genealogists to the field of genetics. The researchers cite examples such as ISOGG's regular updating of [ISOGG's YSNP Tree](#) and the discovery of a novel SNP in haplogroup G made possible through donor recruitment in genetic genealogy databases.

King and Jobling note that "Genetic genealogy enthusiasts often display an impressive level of knowledge about aspects of molecular evolution, population genetics and statistics; some of this is evinced in the quarterly online Journal of Genetic Genealogy (www.jogg.info)."

Thanks to a request by Debbie Kennett, the authors have made a [personal version of their paper](#) available online for you to read.



DNA in the News

DNA in the News

[So, What's in a Name? The search for deep roots of a family tree](#) - The Sag Harbor Express - 16 Sep 2009

[Mapping the path out of Africa, our genes and ourselves](#) - The National - 14 Sep 2009

[Amazing trace, of lineage: National Geographic uses New Yorkers for 'Family Tree' documentary](#) - New York Daily News - 24 Aug 2009

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