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Red-Haired, Fast-Talking Neanderthals

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Recent research publications indicate that some Neanderthals may have had red-hair, fair complexions,[1] and the capacity for speech and language.[2] This is not surprising to creationists who have long held that Neanderthals are fully human, descendants of Adam and Eve, and therefore would be expected to share many modern human characteristics. These findings are contrary to evolutionary-based predictions of Neanderthals as knuckle dragging, dark-haired, grunting savages.

A portion of the FOXP2 gene that has been linked to speech and language and a portion of the MC1R gene important in melanin production have been recovered and sequenced from Neanderthal DNA. This is the first time genes from nuclear DNA have been recovered from Neanderthal fossils.

Neanderthals and Language

Mutations in the FOXP2 gene have been found to lead to speech and language disorders in humans and vocalization abnormalities in mice.[3] The FOXP2 gene is very similar between humans and mice with only three amino acid differences in the protein.[4] The difference between human and chimp FOXP2 protein is two amino acids,[5] which, according to evolutionary ideas, is the result of mutations in the DNA allowing humans to have the capacity for speech and language. (Note: FOXP2 is not the only gene involved in speech and language). These variations in the human FOXP2 gene are believed to have arisen in the past 120,000 years[6] after Neanderthals and modern humans split (250,000 or more years ago).[7] The expectation was that Neanderthals would not possess the mutations leading to the two amino acid differences (when compared to chimps) that modern humans possess. However, it was found that the Neanderthal and modern human DNA both have these *mutations*.[8] It is now believed that these mutations in FOXP2 must have been present before the split with modern humans and that Neanderthals had the capacity for speech and language.[9] Thus they may not be "mutations" at all and instead reflect created differences between humans and chimpanzees.

Another possibility, but one that scientists think is unlikely, is that Neanderthals and modern humans interbred, allowing both populations to have the same version of the FOXP2 gene.[10] There is very little actual evidence to support the idea that Neanderthals and modern humans could not have interbred. The evolutionary basis for this idea seems to be that Neanderthals are not fully human or diverged so long ago from modern humans that interbreeding would not have been physically or genetically possible.

For biblical creationists these findings are not surprising. Neanderthals are fully human and descendants from Adam and Eve.[11] They are either the same species (*Homo sapiens*) or, at the most, a sub-species (*Homo sapiens neanderthalensis*) of human.[12] Obviously, we do not accept the dates of hundreds of thousands of years ago, and most likely Neanderthals were a post-Flood population of individuals that possibly isolated themselves from other humans leading to characteristics unique to Neanderthals (such as facial and skull morphologies).[13] Only those forcing evolutionary ideas on the evidence have problems with Neanderthals having the capacity for speech and language and need to constantly alter their ideas to make the evidence fit.

Redheaded Neanderthals

The same group of scientists that studied the FOXP2 gene also studied the MC1R gene in Neanderthals. The MC1R gene codes for the melanocortin 1 receptor, which regulates the type of melanin melanocytes (pigment producing cells) produce.[14] Mutations in the MC1R gene cause the resulting protein to function poorly, and so, the melanocytes make mostly pheomelanin (leading to red/blond hair, fair complexion, freckles) instead of eumelanin.[15]

Scientists found that the MC1R gene (the portion they studied) was identical in Neanderthals and modern humans in all Neanderthal samples but one.[16] They attribute the identical cases to modern human contamination (see more on this issue below) and the one that was different as being genuine Neanderthal DNA.[17] The gene was found to have a mutation that has not been reported in modern humans. Further testing of the Neanderthal version of the MC1R gene showed it might give the same phenotype (red hair, etc.) as mutations in the MC1R

gene in modern humans.[18] Since Neanderthals are believed to have resided in Europe where sunlight levels are diminished, this phenotype would be expected, as lighter skin increases absorption of available sunlight necessary for Vitamin D production.

Biblical creationists would agree with these conclusions, although clearly *not* as an example of evolution (as the articles suggest). Rather this would be an example of a mutation (in the MC1R gene) that is favored or selected for (natural selection) in an environment where sunlight is diminished and having a fair complexion is an advantage. Adaptation (change within a kind) is occurring—not evolution (change between kinds). Both mutation and natural selection have led to a decrease and/or corruption of genetic information resulting in a defective melanocortin 1 receptor that is present in the Neanderthal population. Neanderthals remain Neanderthals.

Dr. Clive Finlayson, director of the Gibraltar Museum states, "If the Neanderthal and modern variants [of the MC1R gene] are different, it may be a good example of parallel, or convergent evolution—a similar evolutionary response to the same situation."[19] The differences in the MC1R gene are clearly not an example of an "evolutionary response," but rather an adaptive response as described above. Neanderthal populations may have isolated themselves from other human populations such that the variations in the MC1R gene between Neanderthals and modern humans are dissimilar.

The Monkey Wrench

Another article recently published in *PLOS Genetics* brings these results and others published on the Neanderthal genome into question.[20] The authors of the article reevaluated work done on sequencing of the Neanderthal genome last year published in the journals *Nature*[21] and *Science*[22] and suggest that contamination with modern human DNA may have been a factor for the work published in *Nature*.

Their evaluation of the sequence differences between Neanderthal and modern human DNA from the *Nature* paper gave a split in the two populations of 35,000 years ago and for the *Science* paper of 325,000 years ago.[23] The *PLOS Genetics* article suggests that, since the *Nature* paper data does not correlate with the fossil record (which suggests a split of 250,000+ years ago) and indicates that Neanderthals and modern humans interbred, the Neanderthal DNA used in the *Nature* paper was contaminated with modern human DNA.[24]

Unfortunately, this is another example of evolutionary ideas inhibiting science. Fossil dates are typically determined by radiometric dating and index fossils. These methods are based on evolutionary assumptions that do not use God's Word as a source of truth and, so, discount the catastrophic effects of the Flood. There is also no evidence that interbreeding is impossible. In addition, it is not known if differences in DNA between organisms can serve as accurate chronometers especially since these "clocks" are typically based on the idea that one kind evolved into another kind (versus variation within a kind).[25] The evidence, in this case Neanderthal DNA, doesn't speak for itself; presuppositions play a significant role. The authors of the *PLOS Genetics* article, on deciding what data is correct, based their conclusions on erroneous presuppositions from evolutionary timescales!

As biblical creationists, we also would not rule out the possibility that contamination with modern human DNA has occurred. The MC1R paper made it clear that this was a possibility in their research.[26] The FOXP2 paper stated that they performed several controls to assure their DNA was not contaminated,[27] but some of their methods are questionable.[28] However, we believe that Neanderthals are fully human and descended from Adam and Eve, and so, we would expect their DNA to be similar to that of modern humans. The differences that are observed may be due to the Neanderthal population isolating itself from modern humans at some point in the past.

One news article stated, "It's a great example [referring to the *PLOS Genetics* article] of how science can self-correct."[29] Or is it? It can only be self-correcting if the presuppositions used for interpreting the evidence are correct. If the Word of God is the basis for our presuppositions it can only lead us to the right answers. Conversely, if the Word of God—a consistent basis of Truth from the Creator, who is eternal, omniscient, and omnipresent—is the basis for our presuppositions, then we can only be led to the right conclusions.

Footnotes

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