The Evolution of Altruism

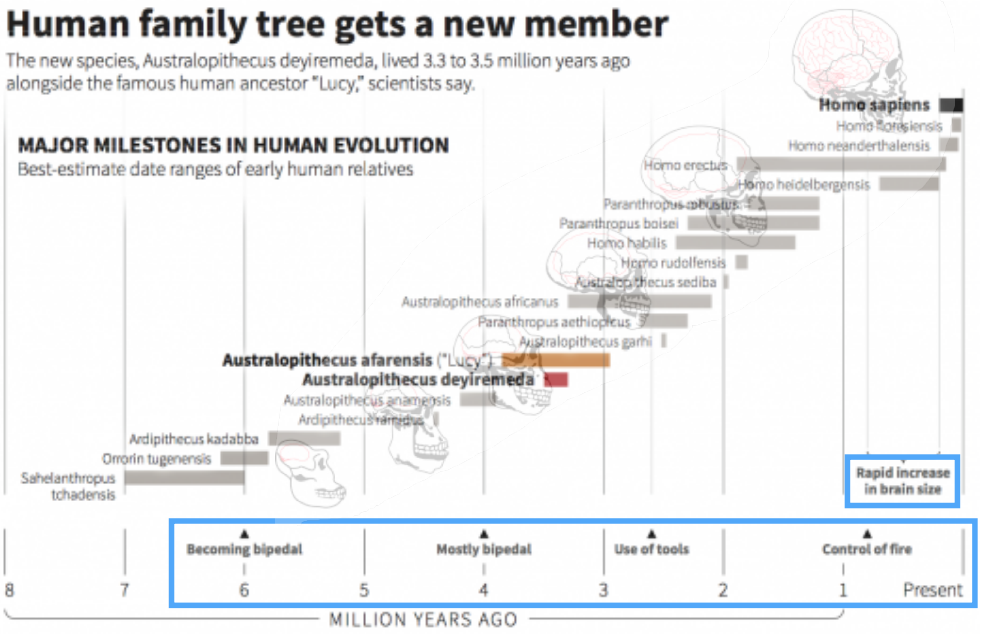
Human DNA similarities to chimps and bananas, what does it mean?

When I was a child I remember hearing humans came from monkeys. I asked myself, "Then why are monkeys still around?" A valid question. The problem with the initial statement though is that we did not come from monkeys, but rather we share a common ancestor. When it comes to common ancestors and evolution, genetic sequencing has provided a great understanding.

I'm sure you've heard it before humans and chimpanzees are about 98.8% similar. What does that really mean though? This number refers to comparing single nucleotide changes in the DNA, or changes in the sequence of the A,C,G,T code.

Comparing genetic duplications in genes, the number lowers to 96%. What's a duplication? As Even Eichler of University of Washington says, if we consider the genetic code as a book, entire pages will be repeated in one species but not the other. So conservatively, we are 96% alike with out closest cousin. Here's some other common animals and our genetic similarites (these numbers are consistent across all reliable sources):

Cat: 90%
Cow: 80%
Mouse: 75%
Fruit Fly: 60%
Banana: 50%



A world map of Neanderthal and Denisovan ancestry in modern humans

Date: March 28, 2016

Source: Cell Press

Summary: Most non-Africans possess at least a little bit Neanderthal DNA. But a new map of archaic ancestry suggests that many bloodlines around the world, particularly of South Asian descent, may actually be a bit more Denisovan, a mysterious population of hominids that lived around the same time as the Neanderthals. The analysis also proposes that modern humans interbred with Denisovans about 100 generations after their trysts with Neanderthals.