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Evolutionary Patterns in the Genus Homo

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ABSTRACT The demographic history of *Homo sapiens* is complex; it involves a wide range of migrations and genetic adaptations. One of the closely related species to *Homo sapiens* is Neanderthals, which became extinct about 30,000 years ago. The aim of this research is to compare *Homo sapiens* with Neanderthals and chimpanzees to understand the patterns of inheritance and survival instincts of *Homo sapiens*. Results show that out of all selected groups of genes in this study, metabolism, and language genes are found to be the most evolving group of genes. This shows that these most evolving genes are contributing to the advancement of *Homo sapiens.* However, after comparing human intelligence genes with the primates, it is found that exonic regions are contributing more to the evolution of human intelligence hence, making *Homo sapiens* unique in terms of intelligence.