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Svante PÃ?Â¤Ã?Â¤bo receives Nobel Prize in Medicine/Physiology 2022

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Awarded for his discoveries concerning the genomes of extinct hominins and human evolution while giving rise to an entirely new scientific discipline; "Paleogenomics"



The Nobel Prize in Physiology / Medicine 2022 has been awarded to Svante Pääbo "for his discoveries concerning the genomes of extinct hominins and human evolution".

Through his pioneering research, Svante Pääbo has sequenced the genome of the Neanderthal, an extinct relative of present-day humans. He also made the sensational discovery of a previously unknown hominin, Denisova. The genetic differences between *Homo sapiens* and our closest extinct relatives were unknown until they were identified through Pääbo's seminal work.

Pääbo has done a extensive study and sequesncing of Neanderthals mitochondrial DNA from a 40,000-year-old piece of bone. He published the first Neanderthal genome sequence in 2010.

He has found that gene transfer had occurred from these now extinct hominins to *Homo sapiens* following the migration out of Africa around 70,000 years ago. Physiologically, this ancient flow of genes has relevance for modern humans, for example, determining how the immune system reacts to infections.

Pääbo's seminal research gave rise to an entirely new scientific discipline; *paleogenomics*. His discoveries revealed the genetic differences that distinguish all living humans from extinct hominins. Furthur analysis on the functional implications of these differences is in progress to understand what makes us uniquely human.

The Nobel Prize in Physiology or Medicine has been awarded 113 times to 225 Nobel Prize laureates between 1901 and 2022.