

SCIENCE

# Medicine Nobel goes to Swedish scientist Svante Pääbo for sequencing Neanderthal genome

**The Hindu Bureau**

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**The Nobel Prizes for 2022 kickstarted with the Physiology or Medicine Nobel announcement**

Swedish scientist Svante Pääbo has been awarded **the Nobel Prize** for Physiology for the year 2022 “for his discoveries concerning the genomes of extinct hominins and human evolution.”

Through his pioneering research, Svante Pääbo – this year’s #NobelPrize laureate in physiology or medicine – accomplished something seemingly impossible: sequencing the genome of the Neanderthal, an extinct relative of present-day humans, the academy said in its press release.

“Through his groundbreaking research, Svante Pääbo established an entirely new scientific discipline, **paleogenomics**. Following the initial discoveries, his group has completed analyses of several additional genome sequences from extinct hominins. Pääbo’s discoveries have established a unique resource, which is utilized extensively by the scientific community to better understand human evolution and migration. New powerful methods for sequence analysis indicate that archaic hominins may also have mixed with Homo sapiens in Africa. However, no genomes from extinct hominins in Africa have yet been sequenced due to accelerated degradation of archaic DNA in tropical climates.

“Thanks to Svante Pääbo’s discoveries, we now understand that archaic gene sequences from our extinct relatives influence the physiology of present-day humans. One such example is the Denisovan version of the gene EPAS1, which confers an advantage for survival at high altitude and is common among present-day Tibetans. Other examples are Neanderthal genes that affect our immune response to different types of infections,” the academy’s citation read.

**The Nobel Prize**   
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Last year's recipients were David Julius and Ardem Patapoutian for their discoveries into how the human body perceives temperature and touch.

The medicine prize kicks off a week of Nobel Prize announcements. It continues Tuesday with the physics prize, with chemistry on Wednesday and literature on Thursday. The 2022 Nobel Peace Prize will be announced on Friday and the economics award on October 10.

The prizes carry a cash award of 10 million Swedish kronor (nearly \$900,000) and will be handed out on December 10. The money comes from a bequest left by the prize's creator, Swedish inventor Alfred Nobel, who died in 1895.

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