

Native Americans and Northern Europeans more closely related than previously thought

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Using genetic analyses, scientists have discovered that Northern European populations—including British, Scandinavians, French, and some Eastern Europeans—descend from a mixture of two very different ancestral populations, and one of these populations is related to Native Americans. This discovery helps fill gaps in scientific understanding of both Native American and Northern European ancestry, while providing an explanation for some genetic similarities among what would otherwise seem to be very divergent groups. This research was published in the November 2012 issue of the Genetics Society of America's journal *Genetics*.

According to Nick Patterson, first author of the report, "There is a genetic link between the paleolithic population of Europe and modern Native Americans. The evidence is that the population that crossed the [Bering Strait](#) from Siberia into the Americas more than 15,000 years ago was likely related to the ancient population of Europe."

To make this discovery, Patterson worked with Harvard Medical School Professor of Genetics David Reich and other colleagues to study DNA diversity, and found that one of these ancestral populations was the first farming population of Europe, whose DNA lives on today in relatively unmixed form in Sardinians and the people of the Basque Country, and in at least the Druze population in the Middle East. The other ancestral population is likely to have been the initial hunter-gathering population of Europe. These two populations were very different when they met. Today the hunter-gathering ancestral population of Europe appears to

have its closest affinity to people in far Northeastern Siberia and Native Americans.

The statistical tools for analyzing population mixture were developed by Patterson and presented in a systematic way in the report. These tools are the same ones used in previous discoveries showing that Indian populations are admixed between two highly diverged ancestral populations and showing that [Neanderthals](#) contributed one to four percent of the ancestry of present-day Europeans. In addition, the paper releases a major new dataset that characterizes genetic diversity in 934 samples from 53 diverse worldwide populations.

"The human genome holds numerous secrets. Not only does it unlock important clues to cure human disease, it also reveal clues to our prehistoric past," said Mark Johnston, Editor-in-Chief of the journal *GENETICS*. "This relationship between humans separated by the Atlantic Ocean reveals surprising features of the migration patterns of our ancestors, and reinforces the truth that all humans are closely related."

More information: Nick Patterson, Priya Moorjani, Yontao Luo, Swapan Mallick, Nadin Rohland, Yiping Zhan, Teri Genschoreck, Teresa Webster, and David Reich, Ancient Admixture in Human History, *Genetics*, November 2012 Volume 192, pp 1065-1093

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