

## **Native Americans actually came from a tiny mountain region in Siberia, DNA research reveals**

**Tiny region in central Russia has DNA link to Native Americans today**

**Ancestors thought to have walked across ice 13,000 years ago**

**Altai is 'key place', because central location means ancient peoples passed through**

By [ROB WAUGH](#)

Altai in southern Siberia sits right at the centre of Russia. But the tiny, mountainous republic has a claim to fame unknown until now - Native Americans can trace their origins to the remote region. DNA research revealed that genetic markers linking people living in the Russian republic of Altai, southern Siberia, with indigenous populations in North America.

A study of the mutations indicated a lineage shift between 13,000 and 14,000 years ago - when people are thought to have walked across the ice from Russia to America.



Altai in Siberia: A study of genetic markers in DNA showed that the lineage of Native Americans changed around 13-14,000 years ago - when people are thought to have walked across the Bering Strait

This roughly coincides with the period when humans from Siberia are thought to have crossed what is now the Bering strait and entered America.

'Altai is a key area because it's a place where people have been coming and going for thousands and thousands of years,' said Dr Theodore Schurr, from the University of Pennsylvania in the US.

Among the people who may have emerged from the Altai region are the predecessors of the first Native Americans.

Roughly 20-25,000 years ago, these prehistoric humans carried their Asian genetic lineages up into the far reaches of Siberia and eventually across the then-exposed Bering land mass into the Americas.

'Our goal in working in this area was to better define what those founding lineages or sister lineages are to Native American populations,' Schurr said.

The region lies at the intersection of what is now Russia, Mongolia, China and Kazakhstan.

Dr Schurr's team checked Altai DNA samples for markers in mitochondrial DNA which is always passed on by mothers, and Y chromosome DNA which sons inherit from their fathers.

Because of the large number of gene markers examined, the findings have a high degree of precision.

'At this level of resolution we can see the connections more clearly,' Schurr said.

Looking at the Y chromosome DNA, the researchers found a unique mutation shared by Native Americans and southern Altaians in the lineage known as Q.

Mitochondrial DNA is found in tiny rod-like 'powerplants' in cells that generate energy.

Both kinds of DNA showed links between Altaians and Native Americans.



In the Y chromosome DNA, the researchers found a unique mutation shared by Native Americans and people from southern Altai.

The findings are published today in the American Journal of Human Genetics.

Calculating how long the mutations they noted took to arise, Schurr's team estimated that the southern Altaian lineage diverged genetically from the Native American lineage 13,000 to 14,000 years ago, a timing scenario that aligns with the idea of people moving into the Americas from Siberia between 15,000 and 20,000 years ago.

Though it's possible, even likely, that more than one wave of people crossed the land bridge, Schurr said that other researchers have not yet been able to identify another similar geographic focal point from which Native Americans can trace their heritage.

'It may change with more data from other groups, but, so far, even with intensive work in Mongolia, they're not seeing the same things that we are,' he said.

In addition to elucidating the Asia-America connection, the study confirms that the modern cultural divide between southern and northern Altaians has ancient genetic roots