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The Search for DNA From a Creature That May Not Exist

BOB DOUGHTY: This is SCIENCE IN THE NEWS in VOA Special English. I'm Bob Doughty.

BARBARA KLEIN: And I'm Barbara Klein. Today we tell about an appeal for genetic material from a famous creature that may not even exist. We report on the health of a man who lived five thousand years ago. And we tell about the effect of changing weather conditions on human ancestors -- the Neanderthals.

(MUSIC)

BOB DOUGHTY: Scientists have launched a genetic search for a large, ape-like creature called the Yeti. They are appealing to people who claim that Yetis exist to provide evidence of the creature.

Researchers from Oxford University and the Swiss Lausanne Museum of Zoology are calling their study the Collateral Hominid Project. Hominid is the general genetic family of primates. It includes modern human beings, also known as *Homo sapiens*. The family also includes all other early human and human-like species.

BARBARA KLEIN: The Yeti is said to live in the mountains of Nepal and Tibet. It is most often described as a large, hairy hominid. It reportedly stands between two and two and one-half meters tall. The name Yeti means "magical creature" in the Tibetan language. Some people have called the creature, The Abominable Snowman or Sasquatch.

Creatures like the Yeti are known as cryptids. A cryptid is an animal that some people say exists, although there is no strong evidence that it does. There can be what is called "circumstantial evidence," like unconfirmed sightings that cryptids exist. Yet scientific proof is lacking.

Other cryptids are Scotland's Loch Ness Monster, Big Foot in North America, and central Africa's dinosaur-like Mokele Mbembe.

BOB DOUGHTY: Researchers from the Collateral Hominid Project have appealed to individuals and organizations who say Yetis exist. They want to examine

organic remains said to belong to the creature. The scientists say they are especially interested in testing pieces of hair. They plan to use recently-developed methods for studying DNA -- deoxyribonucleic acid. They say these methods produce clear results that cannot be falsified. They are planning to write a report about their findings and send it to a scientific journal for all the world to read.

In case you were wondering, the researchers say they do not expect to find any evidence proving Yetis exist. But they are promising to examine what is sent to them. They are accepting organic material for testing until September. The DNA tests are set to last from September through November.

(MUSIC)

BOB DOUGHTY: About twenty years ago, the mummified remains of a man were discovered in a melting glacier in the Italian Alps. The remains were said to be in very good condition. Tests showed that they were about five thousand three hundred years old. The mummy came to be called the Iceman. Scientists called him Oetzi because of where he was found. His body was frozen and mummified in the place where he fell after he was killed.

Over the years, Oetzi came to be buried under layers of ice and snow. But as the Earth's climate warmed, those layers began to melt. In nineteen ninety-one, two Germans found the body while exploring the Oetztal Alps, near the border between Italy and Austria.

BARBARA KLEIN: Recently, European scientists announced completion of a DNA map of Oetzi. They said the map provided details about his appearance, his ethnic origins and even his health.

The details are described in a paper by scientists at the European Academy for Mummies and the Iceman in Italy, and at the Institute for Human Genetics in Germany. Among the findings is that Oetzi was genetically at risk for heart disease.

Yet the scientists say he was not overweight and probably was very active. They say this information is important because it shows that heart disease existed more than five thousand years ago. They say that means the problem cannot be blamed on modern lifestyles or customs.

BOB DOUGHTY: Oetzi's newly-mapped genome also shows that he suffered from borreliosis, also known as Lyme disease. The scientists say this is the earliest-known case of the disease. They say it proves that the disorder was present in the New Stone Age period.

The scientists found that Oetzi was unable to digest milk products. They say he became sick after eating such products or drinking milk. They say this finding supports the belief that what is called lactose intolerance was still a common condition in Oetzi's time. Yet his people were becoming increasingly involved in farming. And some people raised dairy animals for their milk. Today, most Asians and Africans suffer from lactose intolerance, but few northern Europeans do.

BARBARA KLEIN: The researchers believe Oetzi's ancestors probably came from the Middle East. The ancestors were thought to have moved to Europe, as agriculture continued to spread. The researchers say few modern-day Europeans share genes with the Iceman. Those who do live mostly in areas separate from the European mainland, like the Mediterranean islands of Sardinia and Corsica.

Oetzi's DNA map also has helped researchers recreate his physical appearance. They say he weighed about fifty kilograms, and had brown eyes and long brown hair. He was about 1.6 meters tall. This was an average height for a man during the New Stone Age.

BOB DOUGHTY: A report on the Iceman's complete genome is published in the journal Nature Communications. We have included a link to the [study](#) on our website, voaspecialenglish.com.

Earlier studies found that Oetzi died at the age of forty-five. Examinations of wounds on his back show he was murdered. He was shot in the back with an arrow and left to suffer a cold and lonely death in the Alps.

Many scientists have noted the high quality of the clothing Oetzi was wearing and the fine copper axe in his possession. They say this likely means he and his family were probably important within their community.

(MUSIC)

BARBARA KLEIN: Finally, another study has found that most Neanderthals had largely disappeared across most of Europe fifty thousand years ago. That is long before our ancestors, Homo sapiens, first arrived on the continent.

A team of researchers says its findings dispute the long-held belief that Neanderthals were in Europe for hundreds of thousands of years until modern Homo sapiens arrived. The researchers based their findings from studies of DNA taken from fossilized remains of thirteen Neanderthals who lived in what is now northern Spain.

BOB DOUGHTY: The scientists say the Neanderthal human species had died off as

early as fifty thousand years ago. But they say a small group survived for another ten thousand years in areas of central and western Europe. The results suggest that Neanderthals may have been more affected by the sudden changes in climate during the last Ice Age than had been believed.

The DNA tests showed that older European Neanderthals had a much-greater mix of genes than much later Neanderthal populations. Older Asian Neanderthals also had a much greater genetic variation than the later populations.

BARBARA KLEIN: The researchers say they contacted other experts to help confirm their findings. That is because all of their results are based on severely-degraded, or damaged, DNA. They used both modern laboratory and computational methods to reach their findings.

The scientists say they only felt sure of their findings after an international research team studied them. They believe the genetic information reveals an important and formerly unknown part of Neanderthal history.

Scientists from the University of Uppsala in Sweden led the study. They worked with researchers from Spain, Denmark and the United States. A report on the team's findings is published in the journal *Molecular Biology and Evolution*.

(MUSIC)

BOB DOUGHTY: This *SCIENCE IN THE NEWS* was adapted into Special English by Christopher Cruise. Our producer was June Simms. I'm Bob Doughty.

BARBARA KLEIN: And I'm Barbara Klein. You can find a link to the Collateral Hominid Project on our website, voaspecialenglish.com.

Join us again next week for more news about science in Special English on the Voice of America.