

Legend of Human Evolution: Deep Origin and Future Face

The latest fossil finds and molecular analyses suggest that scientists have had to revise almost every chapter of human evolution. In the past seven million years, closely related hominin species shared the Earth many times, making it more difficult to identify direct ancestors of us, *Homo sapiens*.

The most incredible discovery (June 8, 2017, Nature) pushed back origin of *Homo sapiens* to around 300,000 years ago, a whopping 100,000 years older than the previous record, and indicated that our species didn't originate from a confined area of Africa, but rather across the entire continent.

Genetic studies showed that modern humans were the result of interbreeding. Our ancestors had beneficial sex with two extinct archaic hominins, e.g., genes inherited from Neanderthals seems to have boosted immunity, and a gene variant from Denisovans helps Tibetans live at high altitudes.

Before the initiation of farming, around 11,000 years ago, human' teeth averaged more than 10% larger than today. We have rapidly evolved in the recent past and will continue to evolve into the future.

In this talk, I would like to discuss the following aspects: Where we came from, what makes us special, and where we are going.