

The history of my ancestry
begins here

Genetic Research
Ivanova
Tamara Ivanovna

Subject of the study: **Mitochondrial DNA (maternal lineage)**
Study number: **XXXX XXXX XXXX**
Date of the study: **23.06.2019**

Genotype

Genetic
system:

Sample:

HVI

16304C

HVII

263G XXX.XC 315.1C

Terms and definitions

DNA - the macromolecule of deoxyribonucleic acid (DNA) is responsible for preserving and passing on the genetic information of living organisms from one generation to the next. The DNA molecule stores biological information in the form of a genetic code consisting of a sequence of nucleotides.

Haplogroup - a mutation or multiple mutations in DNA (usually a single nucleotide polymorphism) inherited by all descendants, typically from a single ancestor. Determining a person's haplogroup allows for the identification of their ancestral origins, ancestral habitats, and relationships with others who share the same haplogroup.

Y-chromosome - the sex chromosome, one of the pair of male sex chromosomes, XY. It contains the SRY gene, which is responsible for normal sperm development and is the primary determinant of male sex. This chromosome is passed exclusively from father to son, establishing a paternal lineage.

Mitochondrial DNA (mtDNA) - DNA located in the mitochondria, organelles within eukaryotic cells. This DNA is inherited solely from the mother but is passed on to children of any gender, thus establishing a maternal lineage.

DNA Mutations - stable and nearly irreversible alteration in the genome, typically resulting from the substitution of one nucleotide for another. This change is heritable, passing from one generation to the next.

Allele - different forms of the same gene located in the same positions (loci).

SNP marker (Single nucleotide polymorphism) - a variation in a DNA sequence at a single nucleotide. For example, two DNA sequences – AAGCCTA and AAGCTTA. It arises as a result of point mutations.

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Your haplogroup:

H4

Time of origin:

11 thousand years ago

Place of origin:

Central Asia



The main carriers of H4



Spain: 5%



Turkey: 4%



Bulgaria: 4%



Ireland: 3%



Armenia: 3%

Today this lineage and its subtypes are most common in Turkey, Spain, Bulgaria, and Northern Ireland, accounting for about 5-3% of maternal lines. H4 is less frequently found in Norway, Portugal, and France. Geneticists have identified this lineage with trace frequencies up to 1% in other parts of Europe and Western Asia. It is also present in some Jewish diaspora groups (<1%).

INTERESTING! In Russia, haplogroup H4 is found with a frequency of less than 2%. The highest prevalence of H4 is in the Volga-Ural region, around 1.5%.

Origin of the Haplogroup

H4

Origin of the maternal branch: 25-30,000 years ago

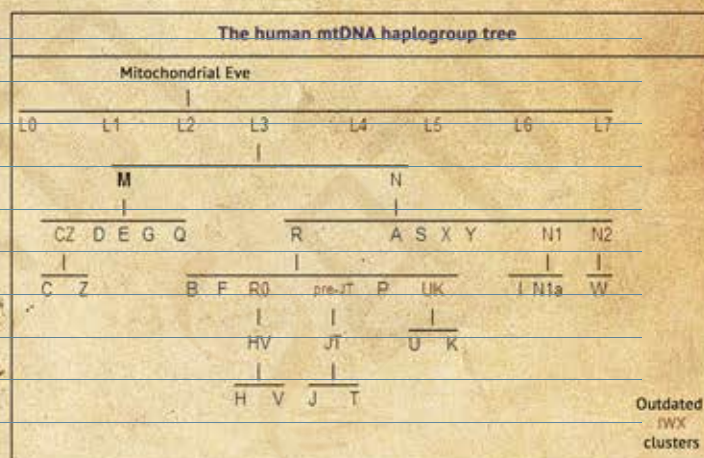
Origin: from H haplogroup

Branch: Non-African

Origin of the haplogroup:



Haplogroup branch:



Haplogroup H is the most widespread and diverse maternal lineage in Europe, covering much of the Middle East and the Caucasus region. The mutation defining Haplogroup H occurred at least 25,000 years ago, possibly closer to 30,000 years ago. Its origin is uncertain, but it likely emerged somewhere around the northeastern Mediterranean—possibly the Balkans, Anatolia, the Levant, or even Italy. Subclade H4 has been identified in Neolithic Spain and is found today among both Basques and Sardinians, populations with a high percentage of mixed Mesolithic and Neolithic European ancestry. However, H4 has not been found among early Neolithic farmers from the Near East or Southeastern Europe.

Mitochondrial DNA haplogroups are thought to descend from a single ancestral haplogroup, often referred to as "Mitochondrial Eve." Geneticist Bryan Sykes named the hypothesized ancestral mothers. The seven main European haplogroups, each tracing back to "Eve," are often referred to as the "Seven Daughters of Eve." Haplogroup H belongs to the Clan of Helena, the largest and most prevalent maternal lineage across the Eurasian continent.

Dispersal of Haplogroup

H4

Migrations

Europe: Spain, Poland, Sardinia, Norway, France, Turkey.

West: Caucasus, Russia.

South: Morocco, the Arabian Peninsula.



Most of Europe and the Middle East have low levels (<1%) of H4, but in certain areas, the levels can be much higher. In places such as Iceland, higher density is likely related to genetic drift from a small number of initial settlers. In other locations, the population may be a remnant of earlier settlers, such as early farmers or even early hunter-gatherers. A large population of H4 carriers may indicate that this subclade corresponds to population growth, for example, the establishment of farming communities in the original area.

H4 is primarily found in Central and Western Europe, as well as in the Middle East and the Caucasus. The Caucasus cannot be treated as one group, as the small countries and populations are divided by significant mountain ranges. In some Caucasian countries, there are no people with the H4 haplogroup.

Who Lived on These Lands



Megalithic:

21% Pastoralism
41% Hunters and gatherers
27% Agriculture
11% Warriors

One of the distinctive features of the culture is the presence of megaliths – structures made from one or more stones. The most common megalithic structure in Europe is the dolmen, which consists of a chamber or tomb made from vertically standing carved monoliths, upon which one or more large flat stones rest, forming the "roof".

Linear Pottery Culture:

27% Pastoralism
19% Hunters and gatherers
48% Agriculture
6% Warriors

The main occupation of the tribes was slash-and-burn agriculture. Tools were made from flint and obsidian. The tribes used pottery, typically spherical in shape, with thin walls and decorated with geometric or spiral patterns.

Famous People Who Belong to Haplogroup H and Subclades

There are no known famous individuals who belonged for subclade H10. However, here is a list of notable historical and public figures whose maternal haplogroup has been identified as H or one of its subclades. This means that you share common ancestors with these well-known individuals, and you may even be a direct descendant of one of them.

Famous People from the Past:



Alexandra Feodorovna - Tsarina
(1872 – 1918)

The Empress of Russia, wife of Nicholas II (from 1894). She was the fourth daughter of Grand Duke Louis IV of Hesse and Rhine and Duchess Alice, daughter of Queen Victoria of Great Britain. In 1981, Alexandra Feodorovna and all members of the royal family were canonized by the Russian Orthodox Church.



Nicolaus Copernicus - Astronomer
(1473–1543)

Polish astronomer, mathematician, mechanic, economist, and canon of the Renaissance era. He is best known as the author of the heliocentric model of the universe, which laid the foundation for the first scientific revolution.



Napoleon I Bonaparte - Emperor
(1769–1821)

French Emperor from 1804 to 1814 and briefly in 1815, a military leader and statesman who laid the foundations of the modern French state. He is regarded as one of the most influential figures in Western history. Napoleon suffered a significant defeat in the War of 1812 against the Russian Empire.

Famous People of Modern Times:



Philip - Duke of Edinburgh, Prince
(1921-2021)

Husband of Queen Elizabeth II of the United Kingdom. Philip is a great-grandson of King Christian IX of Denmark, a great-great-grandson of Queen Victoria of England, and a great-great-grandson of Russian Emperor Nicholas I. He was baptized in the Greek Orthodox faith.



Susan Sarandon - Actress
(October 4, 1946)

American film actress and Academy Award winner, Susan Sarandon became renowned for her roles after turning forty. Throughout the 1990s, she was nearly annually nominated for an Oscar for Best Actress, for her performances in films like *Thelma & Louise*, *Lorenzo's Oil*, and *The Client*. She won the award for her role in *Dead Man Walking* (1995).



Warren Buffett - Entrepreneur
(August 30, 1930)

American businessman and one of the world's most prominent investors, Warren Buffett's net worth was estimated at \$100.1 billion as of March 2018. He is one of the wealthiest individuals globally and holds the position of the second-richest person in the United States.