



Joanne Jones Premium Female DNA Ancestry Report

J4447 – T222233

A mitochondrial DNA specimen was extracted, amplified by the PCR process and sequenced by Family Tree DNA for markers or mutations in the control sections of the D loop known as Hypervariable Regions I and II containing several hundred base pairs of DNA. The following differences from the reference series mutations were reported (rCRS; Andrews; Anderson). A mutation is any inheritable change in a nucleotide in the DNA sequence of genes. Although mutations in the D loop of mitochondrial DNA do not change the individual or have any effect, they have been found useful in tracing female, or mitochondrial, lineages (Richards and Macaulay):

HVR I: Results of mtDNA sequencing for Hypervariable Region I

	16362	16482
rCRS	T	A
T222233	C	G

HVR II: Results of mtDNA sequencing for Hypervariable Region II

	239	263	309.1
rCRS	T	A	:
T222233	C	G	C

According to Richards et al. (2000), the subject's mutations belong to haplogroup H, with matches in the following populations:

- Alps 1
- Northwest Europe 3
- Basques 1
- North Central Europe 3
- Central Mediterranean 1

Southeast Europe 1
 East Mediterranean 2
 Caucasus 1
 Iraq 1
 Turkey 2

In the [Mitochondrial DNA Concordance](#) there were the following matches on HVS1 and HVS2 (where **red** indicates a matching, **blue** an added, and **black** a missing mutation):

<p>16362[C] 16482[G]</p>	<ul style="list-style-type: none"> •Richards,96; G-6; [1:25]; Basque(1) •Richards,96; G-9; [1:25]; Basque(1) •Richards,96; G-92; [1:25]; Basque(1) •Richards,96; 397; [1:25]; Cornish(1) •Richards,96; 398; [1:25]; Cornish(1) •Richards,96; 230; [1:25]; Danish(1) •Richards,96; 7; [1:25]; Turkish(1) •Côte-Real,96; 53; [1]; Basque(3) •Piercy,93; RC1:23; Cauc. UK(1) •Mountain,95; c3; control(1) •Sajantila,95; 44; Icelandic(1) •Sajantila,95; 263; Karelian(1) •Twgdam; 19; Cauc. Amer.(1) •Twgdam; 64; Cauc. Amer.(1) •Twgdam; 190(95F-186); Cauc. Amer.(1)
<p>239[C] 263[G] 309.1[C] 315.1[C]</p>	<ul style="list-style-type: none"> •Calafell,96; 32; Turkish(1)

In [Mitosearch](#), there were two close but not exact matches: [5T55U](#), a descendant of Henrietta Schmidt, born 1833 in Virginia, and [X4jtS](#), a descendant of an unknown woman named Mary from Manchester, England. The latter may be an exact match but did not test on HVS2 so no comparison could be made.

Analysis and Conclusion

On her mother's side, the subject descends through the direct female line from a female of the Eurasian haplogroup H, termed Helena in the scheme of [Oxford Ancestors](#) (Sykes). Because of the paucity of matches it is not possible to say where the subject's particular **haplotype** came from. The highest frequency of H in general occurs in Spain and France, and it is believed that H was the main maternal lineage that created the hunter-gatherer Magdalenian culture of cave art, made famous by the paintings at Lascaux and 150 other locations in southern France and northern Spain and Portugal. When agriculture emerged from the Middle East some 7,000 to 9,000 years ago, H was also among the culture bearers, developing distinctive painted pottery.

Throughout history, H has married preferentially with R1b, I, and R1a, the first, second and third most common male lineages in Europe, also with J in the eastern

Mediterranean. H is the most common female lineage throughout Europe, accounting for approximately 46% of the population.

The maternal line of French queens and kings is H, traceable back to Adele, the last concubine of Charlemagne. As proved by several famous forensic cases, H is the clan of Marie Antoinette, the Tsarina Alexandra and Prince Phillip, and in fact the maternal line of most of European royalty (see "Clan Helena," Gill and Jehaes).

Read about the [spread of H](#) in the National Geographic's Genographic Project.

Donald N. Yates, Ph.D.

Principal Investigator

[DNA Consultants](#)

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References and Suggestions for Further Reading

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12. Wells, Spencer (2006). *Deep Ancestry: Inside the Genographic Project*. Washington: National Geographic.
13. Yates, Donald N. (2009). *Peoples of the World: An Album of Ethnic Types*. Scottsdale: DNA Testing Systems. Preview and order at [Blurb](#).



THIS DOCUMENT CERTIFIES THAT

JOANNE JONES

Ordered a DNA Ancestry Test from Our Laboratories Yielding the Following Results:

Female Lineage H

	16362	16482
rCRS	T	A
T222333	C	G

	239	263	309.1
rCRS	T	A	:
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Donald N. Yates
Principal Investigator, DNA Consultants, 26438 N. 42nd Way, Phoenix, Arizona 85050

