

DNA Results Commentary

The **Warburton DNA Project** is hosted by **Family Tree DNA** and they provide access to the project's results. This document is both a guide to the results on the **Family Tree DNA** website, and an additional commentary to those results.

Terms used in this commentary are explained in detail in **DNA and its Uses in Genealogy**, and there is a set of definitions in **Warburton DNA Project Overview**.

As of February 2020 I have 58 Warburton DNA Results. Of these 23 results are from **DNA Heritage**, 34 STR results from **Family Tree DNA**, and one result is from **YSEQ**. The **DNA Heritage** results were transferred to **Family Tree DNA**, but the **YSEQ** result cannot be added there.

Included in the above are 13 Big Y results and all but 3 of these are BgY-700 results. STR results include 15 x 111-marker results, 21 x 43-marker results, 18 x 37-marker results, 1 x 15 marker result, and 3 x 12-marker results. There are a number of individual SNP tests.

Family Tree DNA sets up a **myFTDNA** webpage for each DNA project participant. You can log in to this webpage at <https://www.familytreedna.com/login.aspx> using your kit number, and a password that is provided by **Family Tree DNA** when you joined the project. I set up passwords for those transferring from **DNA Heritage**.

On the **myFTDNA** webpage you are able to see your results and matches, manage your personal information, specify project sharing, set matching preferences, control administrator access, set earliest ancestor information, order new tests, and join projects. I have included more detail in the **Warburton DNA Project Overview**.

The **myFTDNA** webpage gives access to any type of DNA test you have taken at **Family Tree DNA**, including Big Y results. The Big Y results include your shared SNPs and private variants. You can also see your position on **Family Tree DNA**'s Block Tree. This tool is based on work done in the R-U106-S21 Project (both the Lancashire and Cheshire Groups fall within this project). Anyone who has taken the Big Y test will appear on the Block Tree. You will see a visual representation of your relationship to your closest matches, and be able to follow your sequence of SNPs into the distant past. A scale on the left hand side counts the SNPs back to give an idea of the time since a particular SNP occurred. The current estimate is that a SNP occurs every 83 years on average, though the variation can be quite large. Further improvements to the tree structure can be expected..

Family Tree DNA also provide a **Warburton DNA Project** webpage which I maintain. It includes an introduction page, a table of results, a join page, and a link to donate to the General Fund. It can be accessed at <http://www.familytreedna.com/public/warburton/default.aspx> but only the results of members who have specified project sharing will be shown. To see all the results, find the list of your Projects on your **myFTDNA** webpage, and click on the Warburton project. This will take you to the same **Warburton DNA Project** webpage but now the results will include all project members.

The Cheshire and Lancashire Groups

The Cheshire and Lancashire Groups include 24 test results. They also include 10 of the Big Y tests done so far. I have expanded this with a group haplotree for each group,

The main SNPs associated with the Cheshire and Lancashire Groups, with their ages, are shown in **Lancashire and Cheshire Groups SNP Ages** on the Warburton website. There are several other documents including **The Cheshire Group**, **The Lancashire Group**, **The Lancashire Group Haplotree**, **The Cheshire Group Haplotree** and a group of

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documents covering Time to Most Recent Common Ancestor (TMRCA) calculations for the Cheshire Group.

More can still be done to expand the haplotrees. Opportunities for further testing are included in the group documents.

Deep History

Both groups fall within the R-U106 haplogroup and share a common ancestry up to around 2660 BC. The following description of the deep history of the human haplotree is taken from documents created by the R-U106 project at **Family Tree DNA**. The original documents, **U106 Explored**, and **The Pre-History of the House of Wettin** are available on the Warburton website. It also uses information from www.eupedia.com, and some of my earlier investigations.

The deep haplotree of the human population represents our current understanding of the way the human family tree has divided along its male lines. This is a rapidly-evolving field, thus the information is subject to considerable change over time.

Out of Africa

Ultimately, we all descend from the first life-forms, which lived approximately three billion years ago. Through a long and convoluted process, they evolved into *homo sapiens*. While *H. sapiens* has only been around for about half a million years, this is still older than the common ancestor of the male lines of every person alive today. We call this person Y-chromosomal Adam, because we all descend from him via our father's father's father's father's... etc. Recent estimates of his age vary widely from 120,000 to 380,000 years ago.

The vast majority of people descend through haplogroup A. In fact, it's only recently that researchers discovered our most-distant relations hiding among remote Africa tribes. Haplogroup BT arose in Africa about 70,000 years ago, when the human population consisted of a small number of tribes living in the Horn of Africa.

The human genetic tree continued to diversify and flourish as mankind expanded throughout Africa. Around 50,000 to 60,000 years ago, a small group of migrants is thought to have crossed the Red Sea into Arabia, starting the most important in a series of Out of Africa migrations.

Haplogroup G descends from macro-haplogroup F, which is thought to represent the second major migration of *Homo sapiens* out of Africa, at least 60,000 years ago. Its main branch, macro-haplogroup IJK would become the ancestor of 80% of modern Eurasian people. Haplogroup G had a slow start, evolving in apparent isolation for tens of thousands of years, possibly in Southwest Asia, cut off from the wave of colonisation of Eurasia.

A little over 45,000 years ago, the precursor of haplogroup R split from haplogroups G and I. This point is defined by the recently analysed 45,000-year-old remains from western Siberia.

Haplogroup R, arose between 24,000 and 34,000 years ago. This is again limited by the archaeological remains of Mal'ta Boy, who was buried 24,000 years ago in Siberia. By this time haplogroup R and its precursors had probably expanded across much of north-west Asia, where they existed as hunter gatherers.

Within haplogroup R, most people are part of the R1 haplogroup. Although it originated in Asia, the majority of western Europe is part of this haplogroup. Within R1, there is a bifurcation into two groups: R-M420, and R-M343. R-M343 is thought to have arisen less than 18,500 years ago.

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Expansion into Europe

The original modern human population in Europe would appear to consist of haplogroups G and I. Nowadays haplogroup G is found all the way from Western Europe and Northwest Africa to Central Asia, India and East Africa, although everywhere at low frequencies. Most Europeans belong to the G-P15 subclade,

Haplogroup I is the oldest major haplogroup in Europe and in all probability the only one that originated there. It is thought to have arrived from the Middle East as haplogroup IJ sometime between 40,000 and 30,000 years ago, and developed into haplogroup I approximately 25,000 years ago. In Europe haplogroup I splits into I-M253, and I-M438 which includes sub-clades M223 and P37.

The date of the expansion of sub-clades of haplogroup R1 into Europe can probably be tied to the sudden growth in the number of branches below M269, which can be very roughly dated to around 4000 BC. The origin of this migration and its route into Europe are not well determined at present.

However, archaeological remains show that there were extremely few haplogroup R men in Europe before 2600 BC, when remains from both R-M420 and R-M343 are found in Corded Ware and Bell Beaker burials (respectively) in south-eastern Germany. R-M420 is strongest in eastern populations, where it can exceed 60% of individuals in Poland and the south-west Russian states. Its British content is thought to be strongly Viking in origin.

Haplogroup R-M343 is the dominant Y-chromosome in Western Europe, particularly along the Atlantic seaboard. R-M343 is very much dominated by R-269 which includes 40-70% of the population of continental Western Europe rising to 81% in the Basque country, 85% in Ireland, and over 90% in parts of Wales.

Apart from some minor branches, most R-M269 men also have the R-P311 SNP. R-P311 is now represented by around half of western European men, with a third of a billion diaspora worldwide. It is dated during the European Bronze Age, and the possible range of dates correspond to a series of archaeological horizons spreading eastwards over Europe at the same time.

R-P311 then splits into a larger R-P312 branch and the smaller R-U106 branch. About 25% of R-M269 in Europe are R-U106 which is most common in the Netherlands and Northern Germany. It probably originated in Austria around 2500-3750 BC. It now represents about 110 million men worldwide. See **U106 Explored**, and **The Pre-History of the House of Wettin** on the Warburton website for more detail on the development of the R-U106 haplogroup.

The Cheshire And Lancashire Groups, accounting for nearly half of all Warburton result, are both U106. Only two of the other Warburton haplogroup R results have been determined below M269. Both are within the R-P312 branch.

The R-P312 branch is generally found more on Europe's Atlantic Coast, while the R-U106 branch is generally found more in Europe's heartland. This has led to R-P312 being referred to synonymously with "Celtic" peoples while R-U106 is "Germanic". While there is clearly some overlap between membership of these SNPs and populations, both SNPs originate several thousand years before these terms are relevant.

The large presence of R-M343 in the Basque country led researchers to conclude that members of the R-M343 haplogroup are descendants of the first modern human migrants into Europe some 35-40,000 years ago. This is known as the Upper Palaeolithic migration and was characterised by the Aurignacian culture. During the last Ice Age they retreated to a number of refuges in southern Europe. The large proportion of R-M343 in the Basque region led to the belief that it occurred in the Iberian refuge.

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Since 2010 new research has concluded that R-M343 arose in Central Asia because the oldest sub-clades are found there, whilst those in Western Europe are much newer. The exact time it arrived in Europe is still uncertain but it was probably as a result of the westward migration of Indo-Europeans. The dominant position of R-M343 in Western Europe is not believed to be the result of wholesale population replacement, but simply that men in invading elites have higher reproductive opportunities which means their Y-chromosomes soon come to dominate. This may have been reinforced because they were horse riding cattlemen with lactose tolerance, that was not present in the earlier population.

R-U106 and The King's Cluster

R-U106 contains a more recent SNP called DF98 a sub-section of the R-U106 project which includes the Cheshire Group. This mutation is thought to have occurred between 750BC and 200BC in the Frankfurt area, about the time the La Tene culture arose in that area. It is thought the expansion of this culture could have been the impetus for the spread of DF98.

DF98 is identified with **The King's Cluster**, so named because it includes many of the ruling houses of Europe. **The King's Cluster** is maintained by Iain McDonald within the **Family Tree DNA R1b-U106 Project**. Iain has built an impressive phylogenetic tree and distribution map that can be seen in **The King's Cluster Tree**, and **The King's Cluster Geography** on the Warburton website.

Other Warburton Results

So far the project has uncovered groups of matching profiles, and several unmatched results. Unmatched results cannot share a common male line ancestor with any of the other current participants, though they may be matched in the future. Two previously unmatched results have been matched in recent months.

Currently 40% of results are from the Lancashire and Cheshire Groups discussed above, and in separate documents. The remaining results are described below.

The Warburtons of Garryhinch

Three results are from the Warburtons of Garryhinch. This clan consists of the descendants of three brothers who were present in Ireland in the second half of the 17th century. The results come from descendants of two of the three brothers, so their common ancestor is 9 generations back. The first two results show 3 mismatches over 43 markers (if a 2-step mutation is assumed in marker DYS464). The chances of 3 mismatches in so few generations is only 12%, but we have the genealogical evidence of the link.

The third, more recent result has 2 mismatches from each of the first two over 32 markers, a result that can be expected 15% of the time in 9 generations, though as two of the participants are descended from the same brother their common ancestor can be no more than 8 generations back (11.8% probability).

This family claims kinship with the Warburtons of Arley, and although there is no contemporary evidence to corroborate this, the claim has at times been accepted by the family at Arley. Therefore it is possible that this profile is that of the Warburtons of Arley. However there is growing evidence for the Cheshire Group's profile being that of the Arley family so without a match outside the Garryhinch family it is likely that any link is through an illegitimate or adopted son.

The predicted haplotype of this profile is J-M172. A more detailed understanding the history of the ancestors of the Garryhinch clan would be gleaned by joining the **Family Tree DNA J-M172** project. At least one clan member should also take a Big Y-700 test,

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whilst others could take specific SNP tests to see which of the Big Y tester's private variants they shared. A cheaper first step would involve one person taking the J-M172 SNP Pack test, though it is unlikely clan members' results would differ for this level of test.

Warburtons of West Cheshire

A recent result is from a member of the Tilston Clan of South West Cheshire. It matched a previous result from the Liverpool and Oldham clan. The four mismatches on a 37 marker test give a TMRCA of 19 generations, and a date of 1280 AD (635 AD - 1630 AD). The shared surname implies their ancestor lived in the later part of this range. Migration from West Cheshire to Liverpool seems a logical move from country to city.

The haplotype for this group is R-M269.

Warburtons of South Cheshire

Another recent result is from a member of the Coppenhall Clan of South Cheshire. It matched a previous result from a participant in Audley, whose tree has been developed into the Audley clan. The results were identical over their common 32 markers giving a TMRCA of 5 generations, and a date of 1770 AD (1280 AD - 1945 AD). No link between the two trees has yet been found.

Peter, the earliest ancestor of the Coppenhall clan appeared in Coppenhall before his first marriage. His age at death implies he was born around 1769, but the location is unknown. The parish record of Peter's second marriage named his father John.

William of the Audley clan was born in Marthall, Cheshire in 1760, father John. In all 5 children of John were baptised at Over Peover, but they don't include a Peter. John's wife's name is unknown and no marriage has been found. He may have married elsewhere.

The haplotype for this group is R-M269.

Warburtons of Nottingham and Ashley

The Nottinghamshire clan descends from William, son of John, who was born in 1665. One BigY-700 result has been obtained from this clan.

The Ashley and Morley clan has characteristics, and geography which suggested a relationship with the Hale Barns clan and the Cheshire Group. It descends primarily from William, born in Ashley in 1754, but believed to be the son of Josiah and Martha nee Bradley of Altrincham.

An experimental 17 marker STR test at YSEQ produced an exact match with the same 17 markers of the test from the Nottinghamshire clan. However a standard FTDNA 37 marker test from a branch of the clan that moved to Bolton proved to be a mismatch. Assuming the clan tree is correct, this must be the result of a non-paternal event.

A small family in Western Australia comprises the descendants of Samuel Warburton (circa 1821-1904), an ex-convict of uncertain origins. Two BigY-700 results have been obtained. One is now known to be the result of a non-paternal event, but the other is a match for the Nottinghamshire clan result. Samuel has no known links with Nottinghamshire, but he was convicted in Manchester. As some members of the Ashley and Morley also moved to Manchester it is more likely that Samuel is linked to that clan.

The haplotype for this group is R-FT162667.

Warburtons of Warburton Village

Four results are from the Warburtons of Warburton village. These have produced 2 matching pairs. The common ancestor of one pair is William Warburton (1733-1822), who is 6 generations back from the participants. One of these participants is related to

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Norman Warburton, author of **Warburton: The Village and the Family**, in which he also published his own tree back to the 16th century in Warburton village.

The predicted haplotype is I-M253 which is most common in Scandinavia, suggesting a Viking link. However interpretation of the deep history of I-M253 has undergone radical change in recent years. More information could be gleaned by joining the **Family Tree DNA I1** project and undertaking further SNP testing.

The common ancestor of the other match is Thomas (1731-1801), and the haplotype is R-M269. William and Thomas are cousins, and grandsons of another William (1670-1728), though from different grandmothers.

No problem is indicated in parish records, and all baptisms were at least 2 years after the parents wedding. However one of the haplotypes was clearly introduced by an unrecorded non-paternal event affecting either one of the cousins, or one of their fathers.

The earliest ancestor of this clan is a Thomas Warburton who died in 1627 and is buried in Warburton village. It is believed that a junior branch of the Warburtons of Arley Hall remained in the old manorial residence at Warburton Park when the main family decamped to Arley Hall in the late 15th century. Rent rolls from the 16th century show Warburtons amongst the largest tenants. It is likely, but not certain, that Thomas was part of this line. If he were we would expect a match with the Cheshire Group so both DNA profiles from the Warburton village clan are probably the result of non-paternal events.

Warburtons of Poynton

The most recent match is between two results from the Poynton clan. The clan originates with Joseph who first appeared in 1791 on the baptism of the first of 3 children of Joseph and Sarah of Torkington, baptised at Marple. Sarah died in 1795 and Joseph married Hannah Marsland at Stockport in 1796. They had 10 children, and the two results are from descendants of two of their sons, so triangulating the whole clan. From Joseph's age at death he was born around 1767, but I haven't identified his baptism, or his first marriage to Sarah. I presume he and Sarah moved to Torkington from elsewhere, maybe attracted by the coal mines.

The predicted haplotype is R-M269.

Known Illegitimacies

The following results are known to have come from the descendant of an illegitimate son who took his mother's name. These are:

- i. A descendant of John Charles Warburton of the Wilmslow clan, who was born in 1808 in Wilmslow, Cheshire, the illegitimate son of Alice, the daughter of Peter Warburton and Alice Holt.. The predicted haplotype is R-M269.
- ii. A descendant of Robert Warburton who was born in 1820 in Stockport. Although Robert named his father as Josiah on one of his marriages, research shows he was one of three illegitimate children of Alice Warburton of the Mobberley clan. The family is the subject of an article in issue 12 of The Button Files (see **Newsletters** on the Warburton website). The predicted haplotype is R-M269.
- iii. A descendant of Frederic George Warburton born in 1847 in Audley, Staffordshire. whose mother was Julia Warburton (later Smith). He is part of the Audley clan within the South Cheshire Group. The predicted haplotype is R-M269. Based on close STR matches over 25 markers the participant tested the R-L21 SNP pack and was found to be in haplogroup R-CTS3386. This is in the R-P312 part of R-M269 rather than the U106 part where the Lancashire and Cheshire Groups lie. There is an R1b-CTS3386 project at **Family Tree DNA**

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whose overview states “A Y-DNA study of the SNP R1b-CTS3386 and its downstream SNPs. CTS3386 contains both Scandinavian and Western European elements as well as a Scots - Irish component and continental West Europe”. This is still an early SNP over 3,000 years old.

- iv. An unmatched result from within the Coppenhall clan, South Cheshire Group, is from John who was born in 1863. Although his parents on his baptism are William and Ann, the 1871 census shows him living with William who is his grandfather, and William’s daughter Ann who is unmarried. The predicted haplotype is R-M269.
- v. An unmatched result from within the Tilston clan, West Cheshire Group has been matched with members of the Stewart family so it almost certainly arises from an unrecognised non-paternal event. The predicted haplotype is R-M269.
- vi. A result from a participant whose father was suspected to be illegitimate. The predicted haplotype is I-M253.
- vii. A BigY-700 result from the Sandbach clan proved to be a mismatch and this supports a family rumour of an adoption. The haplogroup is I-A6778.
- viii. The BigY-700 result from the Western Australian family of convict Samuel Warburton has shown that the father of Samuel’s supposed second son was a neighbouring farmer named McKellar. The haplogroup is R-FGC37003.
- ix. A result from from an adoption within the Warburton Village clan has a haplogroup of R-M173.

Unmatched Results

There are currently 8 unmatched results. These are from:

- i. A descendant of Ralph Warburton of the Sandbach clan who was born circa 1817 in Sandbach, Cheshire to a father named Joseph. The predicted haplotype is R-M269.
- ii. A participant in Australia whose earliest known ancestor was born in the Rochdale, Lancashire area circa 1770. This clan has not yet been documented, and I am no longer in contact with the participant. The predicted haplotype is R-M269.
- iii. A descendant of Thomas Warburton (1809-1866) of the West Virginia clan who emigrated to the USA from Newark, Nottinghamshire. No link has been found to the Nottinghamshire clan and the result doesn’t match that from the Nottinghamshire clan. They may have moved to Nottinghamshire to work in the coal mines. The predicted haplotype is R-M269.
- iv. A descendant of John Warburton who lived at Pool Bank farm, Bowdon in the second half of the 16th century. A branch of the family later moved to Timperley. The predicted haplogroup is I-M223.
- v. A descendant of George (1826-1910) whose parents were Thomas and Ann nee Walsh of Sharples. The predicted haplotype is I-P37.
- vi. A descendant from a Quaker Family that originates with Jacob Warburton who was born in 1782 in Bury, Lancashire. The predicted haplotype is G and the participant has further tested to be G-P303.
- vii. A Warburton of Jamaican descent. There are a number of Warburtons in Jamaica, and there are entries in slave registers from the 1820s that include both Warburton owners, and two small mixed race boys who are untypically given a

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surname, which is Warburton. The result is a European Y-chromosome, being haplogroup R-M269, but is unmatched.

- viii. A descendant of a branch believed to be part of the Ashley and Morley clan failed to match a previous result. It has yet to be ascertained if the assumed link is wrong. The haplotype is R-M269.

In addition I have a number of other results within the **Warburton DNA Project** Some are Warburton relations who have used the project as a flag of convenience, others (Duttons in the Cheshire Group and Graves/Sexton on the Lancashire Group) are close matches and believed distant relations. There is also a Warbinton who tested to see if he was a Warburton, but who so far hasn't matched.

I was sent the profile of the Mongan family of Australia. They are believed to be descended from the brother of Charles Terence Mongan Warburton, the Bishop of Cloyne, who adopted the Warburton name in 1792 (see the Mongan Clan). The predicted haplotype is R-M269. It is documented in Interesting **Non-Warburton DNA Results** on the Warburton website along with a Warbritton who is not that different from the Cheshire Group, three other close matches to the Cheshire Group, and someone who has a legend of Warburton decent but didn't match.

Warburton Haplotypes

Over 80% of Warburton results are haplogroup R, and they are all R-M269. The Cheshire Group is within R-U106, in a branch defined by DF98 and S1911. The Lancashire Group is also U106, but in a branch defined by S6881. So far only two other Warburton have tested SNPs below R-M269 and they are both R-P312.

There are 5 Warburton results from haplogroup I, including three from I-M253 and one each from I-M223 and I-P37.

I-M253 is associated most strongly with Finland and Scandinavia. It probably originated 4-5,000 years ago and initially dispersed from Denmark. Research by Ken Nordtvedt into STR patterns linked the Warburton results to a subgroup that originates in Denmark or North Germany and therefore was probably introduced into Britain by the Anglo-Saxons.

I-M223 has a predominantly British subclade, another predominantly Germanic subclade, plus others scattered across Europe. STR predictors and comparisons suggested an origin for the Warburton result in the Netherlands, northwest Germany, or Denmark. This covers the sources of both the Saxon and Danish Viking invasions.

I-P37s by far the largest branch of I-M438 and the one most strongly linked to Neolithic cultures in south-east, south-west and north-west Europe. STR comparisons for the Warburton result link it to a subclade found mainly in north-western Germany, but there are appreciable numbers in the British Isles.

There is one Warburton from haplogroup G who has tested as G-P303.

There are 3 related Warburtons from haplogroup J, with a predicted haplotype of J-M172. This is the most predominant sub-group of the J haplotype in Europe. It is believed to have originated in the Middle East between 15,000 and 22,000 years ago. It is associated with the Neolithic expansion into Europe from the Fertile Crescent. This began about 10,000 years ago but reached Britain only about 6,000 years ago. It followed a route along the Mediterranean, around Spain and to the British Isles where it is most common in Southern England and Central Scotland.

Further Testing

Anyone who is in haplogroup R-M269, or one of the non R haplogroups, but has no knowledge of their more recent SNPs, would benefit from further SNP testing. Ideally this

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should be a Big Y-700 test on one person in the clan. Others could then use this result as a guide for specific SNP tests to isolate the most recent shared SNPs.