MITOCHONDRIAL DNA TEST RESULTS FOR CATHERINE CAMERON AND MARGARET FAIRGRIEVE

DNA testing is currently available which allows you to trace your direct paternal or maternal ancestry. Paternal ancestry is traced through the Y chromosome, which is passed from father to son. Maternal ancestry is traced through mitochondrial DNA, which is passed from mother to child (son and daughter). My direct maternal line goes from me to my mother, Beulah Green, her mother, Alice Haslam to Alice Southam to Catherine Cameron. The mitochondrial DNA for Catherine Cameron will match mine, and also her direct maternal ancestors, such as Margaret Fairgrieve and Margaret Murdison. At this point, the line has been traced back to Mary Smith, born in about 1720 in Newlands, Peeblesshire, Scotland, and her potential mother, Agnes Ramadge.

To find out about the ancient ancestors of these Lowland Scots women, I requested a mitochondrial DNA test from Ancestry.com. Living on the borders of Scotland, they could have been Celtic, Pictish, Saxon, Norman, Celtic, Viking or other interesting ancestries. The test results show that my mitochondrial DNA, as inherited from Mary Smith, is of haplotype K. This may indicate ancient Jewish ancestry.

Haplotype K originates in the Middle East, is strong anciently in Northern Italy, Austria and the Alps, and migrated across Europe and into Britain and Scotland. It is strongly represented in Ashkenazi Jews. The most prominent member of this haplotype is Otzi the Iceman, an ancient man whose DNA was discovered and analyzed in the 1990s.

From the Ancestry.com report: *"Haplogroup K appears in West Eurasia, North Africa, and South Asia and in populations with such an ancestry. Overall mtDNA Haplogroup K is found in about 6% of the population of Europe and the* Near East*, but it is more common in certain of these populations. Approximately 16% of the Druze of Syria,* Lebanon*,* Israel*, and* Jordan*, belong to haplogroup K. It was also found in a significant group of Palestinian Arabs.[5] K reaches a level of 17% in Kurdistan.*

Approximately 32% of people with Ashkenazi Jewish ancestry are in haplogroup K. This high percentage points to a genetic bottleneck occurring some 100 generations ago. Ashkenazi mtDNA K clusters into three subclades seldom found in non-Jews: K1a1b1a, K1a9, and K2a2a. Thus it is possible to detect three individual female ancestors, likely from a Hebrew/Levantine mtDNA pool, whose descendants lived in Europe.

The average of European K frequency is 5.6%. K appears to be highest in the Morbihan (17.5%) and Périgord-Limousin (15.3%) regions of France, and in Norway and Bulgaria (13.3%).[8] The level is 12.5% in Belgium, 11% in Georgia and 10% in Austria and Great Britain.

Haplogroup K was found in the remains of three individuals from the Pre-Pottery Neolithic B site of Tell Ramad, Syria, dating from c. 6000 BC. Haplogroup K has also been found in skeletons of early farmers in Central Europe of around 5500-5300 BC. It has long been known that the techniques of farming, together with associated plant and animal breeds, spread into Europe from the Near East. The evidence from ancient DNA suggests that the Neolithic culture spread by human migration.

Analysis of the mtDNA of Ötzi the Iceman, the frozen mummy from 3300 BC found on the Austrian-Italian

border, has shown that Ötzi belongs to the K1 subclade. It cannot be categorized into any of the three modern branches of that subclade (K1a, K1b or K1c). The new subclade has provisionally been named K1ö for Ötzi. Multiplex assay study was able to confirm that the Iceman's mtDNA belongs to a new European mtDNA clade with a very limited distribution amongst modern data sets.

A woman buried some time between 2650 and 2450 BC in a presumed Amorite tomb at Terqa (Tell Ashara), Middle Euphrates Valley, in Syria carried Haplogroup K."

Additional DNA testing through 23andMe provides additional information on the haplogroup: the specific subgroup is K1c2.

If you are a descendant of Catherine Cameron, or any of her direct maternal ancestors, then this is your DNA, too.