

5. Results Summary

5.1 Progress So Far

As at the date of writing¹⁰ the Y-DNA results of some 320 men of clear Manx origin have been included in the study database. A minority of these men¹¹ are born or living today on the Isle of Man¹² but virtually all were able to show documented ancestry of their male line back to the Isle of Man.

Full or partial results are available for 105 out of the 125 unique Manx families and represent some 85% of the present day population of these 125 families, on a weighted basis¹³. This response is encouraging, especially when there has been no external financing to assist people in paying for their tests.

5.2 Overview of Findings

5.2.1 Relatively High Proportion of Scandinavian Genes in the male Manx population

From investigating the male population of the Isle of Man in the period just after the end of Scandinavian rule we can identify a part of the legacy of their occupation of the Island. Based on the sample of men tested in the study, **approximately a quarter of the men of this early population, immediately after the end of Scandinavian rule, of the Isle of Man, with male descendants surviving today, had male ancestors who previously came from Scandinavia and Northern Europe.** The remainder came from neighbouring areas, mainly Ireland, Scotland and early Britain.

The proportion of Scandinavian genes in the male population of the Isle of Man today will have been reduced however since then, as a result of the influx of population into the Island in the 19th and 20th centuries, but is likely to be higher than the average (ca 20%) across the rest of the British Isles

On the basis of the data collated so far, approximately 65% of the indigenous male Manx population at the time immediately after the end of Scandinavia occupation, was recorded as haplogroup R1b and hence could be deemed to be of Celtic origin, and 25% (a mixture of haplogroups R1a, I1 and Q) of North European/Scandinavian origin, these latter men probably arrived during the Scandinavian occupation of the Island. The remaining 10% are seen to belong to Haplogroup I2 which covers a range of origins including early Celtic Britain and Central Europe and their routing into the Isle of Man is still less clear.

For 70 of the 105 families included so far, the ancestral haplotype, or the representative Y-DNA signature for that family, has been identified. This means that some Manx families can already be clearly and firmly identified from their Y-DNA data as being of North European/Scandinavian origin and most likely settling on the Island around the time of Viking rule. The remainder can be described as being of what is commonly named as Celtic origin, coming from an area neighbouring to the Isle of Man.

5.2.2 Shared Male line Ancestry

The main, unexpected, finding to emerge out of this study is the extent to which the male lines of Manx families with entirely different names are connected to each other genetically and share a common male ancestor in a relatively recent time period before names became hereditary. Or, expressed in a different way, the number of different genetic male lines is less than the number of surviving family names.

This characteristic is more prevalent in men of Scandinavian origin, but is still true to a lesser extent for the Celts. The phenomenon that must have occurred had sons, who survived and who themselves reproduced to create separate lines of new generations of male descendants. These family lines lived separately from each other, but at the period of time when patronymic family names started to

¹⁰ 30th December 2015

¹¹ Ca 34%

¹² Suggesting that the descendants of islanders abroad are more keen to research their family genetics, or are more prepared to pay the costs of testing, than those still on the Island.

¹³ Using the 2001 Electoral Roll as a basis for forming an assessment of the relative frequency of each family name within the "indigenous" population as recorded in 2001.

become hereditary¹⁴, each family adopted a different name from each other, depending on their father's name, where they lived, the occupation or appearance of the father etc. So genetically all the men were related, but they adopted different family names for their descendants.

5.2.3 Manx Names ARE Unique to the Isle of Man - Similar Manx and Gaelic named families do not share common genetic origins.

The study shows that all those Manx names that also occur in neighbouring Gaelic-speaking areas have different origins from those other families bearing the same name, and have no genetic connection with them. So for example the Manx Kelly male line (amongst many) has no linguistic or genetic connection at all with the Irish Kellys. The names must have been formed in a similar fashion to each other, but there is no family connection. No Manx family male line tested so far has been shown to have any earlier genetic connection with another Gaelic family with the same or closely identical name! So those familiar family names (e.g. Curphey, Bridson, Kennaugh etc) which we consider to be typical of and unique to the Isle of Man are indeed so! - thus **"Kelly from the Isle of Man" is truly from the Isle of Man!**

5.2.4 Different Variants of the Same Manx Name Exist Today

Where there are variants of the same original Manx family name found today and which are popularly assumed to be equivalent, e.g. Gell, Gale and Gill, Collister and Callister, Cowell and Cowle, Carran and Karran etc, the genetic evidence has confirmed that they do indeed relate to the same family and are variants of each other.

5.2.5 Most Families Show a Single Male Genetic Origin

Most Manx family names are considered in genealogy terms as being low-frequency names, i.e. the number of name-bearers worldwide is low. Because of this fact and with their origins on a small island, we would expect that all the Manx families would all each be descended from one male patriarch, i.e. of single genetic origin. This proved to be true in the majority of cases tested, but with three exceptions, surprisingly. Several families with the same name, but founded genealogically in different parishes on the island have turned out to be of more than one genetic origins. In such cases recruitment and testing continued until a sufficient number of men with that name had been tested and different Y-DNA signatures could be attributed to different genealogical family lines.

It is assumed that, where we have identified two different male genetic lines for families bearing the same Manx name and with genealogy that does not appear to connect, this is as a result of a similar Gaelic family name being adopted in parallel by two different families, at the time that family names became hereditary. In time both names have evolved into the versions of the name that they share today.

It is also possible that one of these different genetic lines could be as a result of a non-paternal event (NPE). However, increasingly as the database of Y-DNA of Manx names has been built up over the course of the study, when a possible NPE has been identified, it has usually been possible to match their Y-DNA signature to that of another known Manx family and identify the source family of the NPE.

5.2.6 Non-Paternal Event Incidence

The presence of non-paternal¹⁵ results within the body of the results so far has been a complicating factor, but, as the database of Manx family name Y-DNA signatures has developed, it has become easier and easier to identify when a non-paternal event is encountered. However, analysis suggests that the rate of incidence of NPEs is around 12% of all men tested. Whilst this might appear on the face of it to be a high figure, it only equates to a level of non-paternal event of 0.5% per generation, over the 28 generations or so on average that hereditary Manx family names have been employed. So one in eight men tested in the study did not show the Y-DNA profile which was typical of his family name!

¹⁴ Approximately between 1050 and 1300AD

¹⁵ Men who are not genetically similar to the rest of their family line, as a result of a past illegitimacy, adultery, adoption or name change in their paternal line.

5.2.7 Manx Family Descendants with Exported Name Variants

Three groups of men with Gaelic names, not found on the Isle of Man, have been found to be the descendants of several indigenous Manx families. In each case, a Manxman had left the Island in the 17-18th centuries and his name had evolved into a version of the name not found on the Isle of Man. Several of these groups of men believed they had Irish origins, but in fact were found to be Manx.

5.2.8 Autosomal DNA Testing

A number of participants in the study had additionally undergone Autosomal DNA testing. This commercial DNA test can be used by both male and female, and it can identify genetic cousin relationships within a group of people tested. The accuracy of the test is limited to identifying genetic connections within the last 250-300 years. The autosomal DNA results of 41 men and women who had demonstrated ancestry back to the Isle of Man in the last 300 years were analysed, and, on average, each of them had at least two genetic cousin relationships (5th cousin or closer) from amongst the group of other people tested. In other words, each person had two (previously unknown) cousins identified from amongst the remaining 40 participants. This is additional evidence of the close genetic community of the Isle of Man.

5.3 Analysis by Haplogroup

An individual Y-DNA signature of a man is termed a haplotype. Looking back in time it is possible to identify Y-DNA definitions for large groups of men, who sometime in the past shared a common ancestor, and these larger Y-DNA patterns are termed haplogroups. The entire human genetic tree, both male and female, is composed of haplogroups, with very many branches and twigs within and beneath them. **Our knowledge of this human genetic tree is constantly being expanded by an iterative process of testing people to discover and identify new locations on the tree, and then developing new testing approaches to uncover even more detail. Analysis of this human genetic tree however reveals evidence of the movement of early populations of humans around the world as well as enabling an approximate timescale to be put on that movement.**

This type of analysis has been used to gain a greater understanding of where our Manx family male lines came from before they arrived on the Island and the degree of inter-connection between them. As research progresses, the knowledge already gained within this study will provide a solid foundation to allow a more detailed understanding of the specific origins of these Manx families to be gained in the future.

However, at the present stage of knowledge and analysis we cannot distinguish whether those settlers on the Island, who we can identify as being of Scandinavian origin, were original Viking settlers or the later Norse-Gaels who arrived from Ireland and the Western Isles. In time this may become more possible. Equally as our Celtic ancestors moved across and between Scotland, the Western Isles and Ireland the precise location of the origins of all families at any one time cannot be pinpointed today.

5.3.1 Haplogroup R1b

Haplogroup R1b is the largest genetic male grouping within the UK and is shown by ca 80% of the total male population. A lot of research is currently being directed at defining the detailed genetic family tree within R1b and whilst broadly it can be said that a R1b man is of Celtic origin there are many much more subtle distinctions and differences to be identified within this haplogroup.

The L21 SNP within R1b is prevalent in Scotland and Ireland and is judged indicative of a Celtic origin and some 30 of the Manx families tested so far fall within this classification.

A particular genetic marker under L21 is M222+ and this is shown by one of the **Teare** lines, one of the **Collister** lines, **Crellin**, **Radcliffe**, **Costain** and probably more. This is a strong Irish haplotype more popularly attributed as defining the Uí Néill dynasty of early Ireland.

Bridson and **Quilliam** show a particular SNP L159.2 which indicates an early origin amongst the Leinster Irish families.

Creer, Christian, Cowin, Cowell, Moore as well as probably **Quark** are DF41+. This SNP is also under L21 and is certainly Celtic, and in a Manxman may well indicate a Scottish connection..

Kelly, one **Collister** line, **Kennaugh Quirk** and **Faragher** are DF27+ which may be indicative of a very early Basque Celtic origin. However **Faragher, Quirk** and **Kennaugh** all show a distinctive genetic pattern named "ROX2" which was first found in Scotland and these three families all descend from one man who lived around 850AD probably in Scotland.

Clucas and the northern group of **Cains** also show another, but different, genetic pattern which places this family in a group of predominantly Scottish men in the "Little Scottish Cluster".

DF13+ is another large group under L21 with at least 10 Manx lines being classified as such, including **Corlett, Cubbon, Gelling, Gorry, Kewley, Killey, Morrison, Quilliam, Taggart, Watterson** and one of the **Teare** lines. **Morrison** and **Kewley** appear to share a single common male ancestor, some short time before family names were adopted on the Island.

Scarffe has tested to show a genetic marker under R1b, namely L238, and very unusually within R1b, this classification is almost always associated with an origin in Scandinavia

R1a Families

Haplogroup R1a is one of the more common haplogroups in Eurasia. Where this genotype is found in men in the North and West of the United Kingdom it is assumed to have come from Scandinavia, brought over by the Vikings.

Seven Manx families have been clearly defined as R1a, SNP I-M198+. Surprisingly some of these families, **Cain** (southern group), **Cormode, Keig** and **Oates**, appear closely related to each other and all appear to share a most recent common ancestor in the period 900-1000AD. This raises the tantalising prospect that these four lines are all the descendants of one early male Viking settler who arrived on the Isle of Man around 1000 years ago. The **Cretney** family may also be connected to this group.

The **Brew** male line is also R1a and there are still several other Manx families which probably also belong to this classification, but more testing is still required.

I1 Families

Haplogroup I1 is the original paternal lineage of Nordic Europe and is defined by the SNP I-M253+.

Nine Manx families so far have been identified as belonging to this haplogroup, and so we can safely assume that their patriarchs also arrived on the island from Scandinavia.

Despite the apparent possible similarity in name between **Kaighin** and **Karran** there is no genetic connection between the two families within the timeframe that family names have been in use.

It is clear that a group of Manx families within Haplogroup I1 are all descended from just one man of Scandinavian origin, sometime in the period 800-1200AD, namely **Caley, Kaighin, Karran, Kneale, Leece** and **Looney**, and even earlier the **Cowleys**.

Casement and **Lowey** also belong to Haplogroup I1 and it looks possible that more families will do so also, once more testing is done.

I2 Families

Haplogroup I2 is Continental Europe's Mesolithic paternal lineage and is defined by the SNP I-M223+. The presence of this genotype in men from the Isle of Man is more difficult to categorise as is the precise determination of their origins.

The **Lace** and **Callow** families show a genetic marker M284+ which is believed to have been formed some 3000 years ago in early Britain.

Two families **Kinley** and **Corkill** are connected and share a comparatively recent ancestor. They together with the **Callow** line appear to have an origin somewhere in the early British Isles within the last 2000 years.

Other Families

One Manx family, **Killip**, has tested as haplogroup Q with a positive SNP of L527. Haplogroup Q is very rare in Europe, and L527 only occurs at low frequency in Norway and Sweden. Thus we can safely assume that the patriarch of the Killip family was also a Norse Viking.

The Manx family **Stephen** which has been recorded as being on the Island since the 1400s at least has tested as belonging to Haplogroup E3b. This classification is indicative of a Mediterranean or North African origin and is clearly unusual on the Isle of Man. One can only speculate that this atypical genetic line is a legacy of an early seafaring visitor or even a member of the Roman legions!