

5. Results Summary

5.1 Progress So Far

As at the date of writing⁹ the Y-DNA results of some 505 men of clear Manx origin have been included in the study database. A minority of these men¹⁰ are born or living today on the Isle of Man¹¹ 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 121 out of the 130 unique Manx families and represent some 87% of the present-day population of these 130 families, on a weighted basis¹². 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 104 of the 121 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 Genetic consequences of the evolution of Gaelic family names: The study results have shone a new light on the process that occurred when early patronymic Gaelic names evolved and became hereditary. In early times individuals were originally only known by their single or personal names. Such personal names were often nicknames or descriptive (e.g. Duggan = "little dark man") but some thousand years or so ago the Celtic patronymic system of names started to be adopted.

⁹ August 2018

¹⁰ Ca 37%

¹¹ 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.

¹² 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.

The patronymic system meant that individuals were identified by using the name of their father as well as their personal name e.g. Cormac MacNeill (or Cormac son of Neill). Other family names might be also adopted which perhaps described some other attribute of the individual, their appearance, their trade, for example or the name of the place they lived, but the Celtic patronymic surname based on Mac = "the son of" was the most common.

Over a period of time these family names started to be adopted permanently (hereditary) and then passed down from male generation to male generation unchanged. This is believed to have occurred gradually on the Isle of Man in the period between 1050 to 1300AD.

This one-time transformation in the durability of a Gaelic origin family name, from lasting only for a single male generation and changing to being permanent and multigenerational, has been seen within the study to have two different and unanticipated consequences, that can affect the expected connection between a family name and its associated Y-DNA profile.

A. Parallel name formation: Different Y-DNA profiles with same family name

Under normal circumstances, in a small population like the Isle of Man, it would be expected that Y-DNA analysis would show that each family bearing the same family name today would descend from a single male patriarch.

In the early stages of the study it became apparent that a small number of male line families, despite bearing the same name, showed different Y-DNA profiles from others with the same family name. Deeper analysis of the genealogy and DNA data revealed that this was a result of the same hereditary family names being adopted in early times, in parallel, by different families. The families were descended from different patriarchs not genetically related to each other and who for centuries had lived in different parishes from each other, elsewhere on the Island.

But, when we consider the generic nature of the formation of these Gaelic family names which originally were patronymic in form, it is entirely possible that different genetic families could end up with the same hereditary name today, as a consequence of the irrevocable change from transient to permanent and identical family names. This characteristic has been seen in 7 of the 130 surviving indigenous Manx families so far.

B. Genetic persistence: Same male Y-DNA profiles but with different names

Another unexpected finding to emerge from the study has been the extent to which the male lines of Manx families with entirely different names are connected to each other genetically.

Analysis shows that a number of families, bearing totally different family names, have been found each to share a common male ancestor, who lived in a relatively recent time period, but before names became hereditary.

The phenomenon that must have occurred is that individual men had sons, who themselves then reproduced to create separate lines of new generations of male descendants. These descendant family lines lived separately from each other, but by the time when patronymic family names started to become hereditary, each family had already adopted a different family name from each other, depending on their individual father's name at that time. So genetically all these men were related and were descended from one common male ancestor, but they adopted different permanent, hereditary family names for their descendants. In hindsight this can be seen as an inevitable consequence of a changeover from a Gaelic patronymic naming system to a hereditary one.

In most societies the dominant situation is that most male line family names are of multiple genetic origins, i.e. The Browns and Smiths etc are not just descended from one man, and these names are widely used. The Manx family names are low frequency names and originate only on the island.

Therefore, by contrast, one would expect them each to be descended from just one male patriarch because of the small population and low population mobility. Accordingly, it was unexpected to find a number of Manx names (7) with different genetic origins, but with the names adopted in parallel. It was even more unusual and unexpected then to find so many families with different names who were in fact closely related without knowing it.

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, Keig and Kegg etc, the genetic evidence has confirmed that they do indeed relate to the same family and are variants of each other.

5.2.5 Non-Paternal Event Incidence

The presence of non-paternal¹³ 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 0.4% per generation, over the 34 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!

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 100+ 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 six genetic cousin relationships (5th cousin or closer) from amongst the group of other people tested. In other words, each person had six (previously unknown) cousins identified from amongst the remaining 80 participants. This is additional evidence of the close genetic community of the Isle of Man.

¹³ 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.

5.3 Analysis of Genetic Signatures

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, the public database of Y-DNA haplotypes is growing steadily, and hence the knowledge and interpretation of the growing male genetic tree continues to grow as well.

5.3.1 Family Names formed in Parallel: More than one haplotype per family name.

As explained earlier there are seven Manx family names where there have been found to be two different genetic lines, descended from different male patriarchs, often living in different parts of the Island. Generally the lines are split between the northern and southern parishes, but not always. These families are:-

- **Caine** – two lines – R1b from the north of the island and Scandinavian from the southern parishes.
- **Callister/Collister** – a northern group and a southern group centred on Castletown.
- **Keig/Kegg/Skaggs** – a Scandinavian group centred on Ballaugh and a southern group from Malew, probably of Irish origin.
- **Kneale** – two different lines both of Scandinavian origin
- **Quayle** – two R1b lines, one northern and the other southern
- **Quine** – two R1b lines, both from the south of the island, Santon and Arderry in Braddan
- **Teare** – two R1b line, but with no clearly defined geographical focal point.

5.3.2 Genetic persistence: Same male Y-DNA profiles but with different names

Analysis has shown that there are a number of examples where male lines bearing different names are in fact descended from the same male common ancestor. Many of these ancestors were living on the Isle of Man but there are examples also where such a male line could be traced back to a single male ancestor who was living elsewhere and where several of his male descendants ultimately came to the Isle of Man.

Clearly identified groups so far are: -

- **Keig/Skaggs, Oates, Cretney, Curphey, Cain** (southern line), **Cormode** and **Curphey**. These male lines are all descended from one man of Scandinavian origin (haplogroup R1a) who must have lived on the Island in the period 1000-1200AD.
- **Brew** and **Fayle**, two other R1a families of Scandinavian origin, who descend from just one man who lived on the Island.
- **Caley, Coole** and **Leece** are also of Scandinavian origin (haplogroup I1) and descend from one man.
- **Cowley** and one **Kneale** line are also of Scandinavian origin and share an earlier haplogroup I1 common ancestor

- **Corkill** and **Kinley** share a common ancestor around 1100AD and are of early European Mesolithic origin, haplogroup I2
- The **Cain** (northern group), **Clucas**, **Howland** and the **Quine** family from Santon all show a genetic profile typical of a group called the “Little Scottish Cluster”. This signifies that their common male R1b ancestor lived in Scotland.
- The **Kennaugh**, **Faragher** and **Quirk** male lines all show a unique haplotype known as “ROX2”. They all descend from one man who lived around 750AD, possibly in Scotland.
- The R-M222 mutation has been popularly attributed to be able to identify descendants of the Ui Niall dynasty of early Ireland¹⁴ and is widely found within the Gaelic speaking region. This is equally true of the Isle of Man and so far, eight Manx male lines show this mutation and descend from this M222+ common male ancestor. They are **Crellin**, **Costain**, **Radcliffe**, **Teare**, **Keig** (southern), **Callister** (southern), **Garrett** and **Crennell**. Several of these families share a common male ancestor who lived on the Island, but others not then, but before they arrived on the IOM. They all however descend from the same early R-M222 man.
- Another mutation seen to be strongly indicative of a Celtic origin is R-DF41. Four Manx DF41 male lines, **Christian**, **Moore**, **Cowell** and **Quark** share a common male ancestor within the last 1000 years, possibly who lived on the Island. Another Manx family **Creer**, is also DF41 but connects with the other four DF41 lines, much earlier than that.
- **Condra** and **Cottier** show the R-L47 mutation and they would appear to share a common ancestor on the Isle of Man.
- **Kewley** and **Morrison** both show a mutation R-L1402¹⁵ with a common male ancestor, who most probably was living on the Island
- **Watterson** and **Killey** are both R-FGC5496+ but it is not clear where and when in early Celtic Britain their common ancestor lived.
- **Quilliam** and **Taggart** share a early common ancestor, probably in Ireland. Their distinguishing mutation R-L159.2 is suggestive of an origin in Leinster.
- The cohort of **Callister** and **Kissack** men tested so far are all very close genetically. The Y-DNA evidence suggest that all the Kissacks tested so far are descended from a male Callister in the 1600s ostensibly the result of a non-paternal event at that time. It has not been possible to find a Kissack man who tests any different from this. So, either the original Kissack male genetic line has died out, or there are **very** few left anywhere.

5.3.3 Other Highlights

121 Manx male genetic families have been tested so far, 104 fully and the remainder in part.

Haplogroup R1b is the largest genetic male grouping within the UK and is shown by ca 80% of the total male population. However only 66% of the Manx lines tested so far fall within this haplogroup, reflecting the different genetic origins of the Isle of Man.

The next most frequent haplogroup on the Island is I1 which was found in 15% of the Manx male population and is indicative of a Scandinavian/North European origin. 10% of the tested population belonged to haplogroup R1a which is also indicative of a Scandinavian origin. Thus, in total 25% of the male families tested showed earlier origins in Scandinavian or Northern Europe. It can be expected that these male lines arrived on the island in the period 900-1200AD namely the time of Scandinavian influence and control.

Several unusual findings were observed: -

- The **Scarffe** male line displayed a relatively rare mutation under R1b, namely R-L238, which uniquely indicates a Scandinavian origin.

¹⁴ This belief is now subject to some debate, but R-M222 is definitely indicative of an early Irish or Scottish origin.

¹⁵ Associated with the Seven Septs of Laois in Ireland

- 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 very 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!

5.3.4 Name Variations

The genetic analysis carried out in the study has confirmed some expectations where different variants of a Manx family name are found in various records over time and are generally assumed to be equivalent. So, the results confirm that the following names and variants are equivalent to each other: -

- **Callister and Collister**
- **Cowell and Cowle**
- **Keig and Kegg**
- **Carran and Karran** (not the same so far as **Carine**)
- **Gale and Gell**
- **Kennish and Kinnish**
- **Kermode and Kermott**
- **Faragher and Fargher**

And as expected from the etymology, **Kermode** and **Cormode** are not equivalent.

Furthermore, Y-DNA testing has uncovered the previously unknown Manx ancestry of a number of men living outside the Isle of Man today, whose names had evolved or had stayed close to an early Manx form of the name since their ancestor emigrated, and who thought they were probably Irish. Examples include: -

- **Skaggs**, changed from **Skeig**, an early form of **Keig**.
- **Corrie**, evolved from **Gorry**
- **McIlrea** from an earlier form of **Mylrea**
- **McCorley/MacCauley** from **MacCorleot**, an earlier form of **Corlett**,
- **Kneil** from **Kneale**
- **Tygrett/Tygett** from **Taggart**
- **Teer** from **Teare**
- **Qualey** from **Quayle**

5.3.5 Further Analysis

Deeper testing and analysis to learn more about the early relationships between various of these Manx families is still required and is planned. In due course, it is hoped that phylogenetic trees showing in more detail the connections between some of these families will be published.

Furthermore, there has been no work so far, to try and look at the geographical distribution on the Island of the various genetic groupings, to assess how they might correspond with the known areas of foreign settlement on the Island. Additional analysis is also needed to review the etymology of many of these unique Manx family names in the light now of their known male genetic origins.