The conclusions of this report ONLY apply to McEvoys that carry the I-M223 paternal marker. There are an estimated 9 distinct McEvoy clans, all potentially genetically unrelated and living in differ Irish locations. You must Y-DNA test to determine if you are an I-M223 McEvoy!

Contact Irish Origenes for a FREE consultation tyronebowes@gmail.com

Pinpointing the McEvoy Irish Paternal Ancestral Genetic Homeland

An Irish Case Study

www.irishorigenes.com



Dr Tyrone Bowes 2nd March 2021

Introduction

A simple painless commercial ancestral Y chromosome DNA test will potentially provide one with the names of many hundreds of individuals with whom one shares a common male ancestor, but what often perplexes people is how one can match lots of individuals with many different surnames? The answer is quite simple. Hundreds of years ago, one's direct male ancestor, the first for example to take the 'McEvoy' surname was living near others with whom he was related but who inherited other surnames like O'Neill, McGuinness, and McConville. Given that hundreds of years have passed since paternally inherited surnames became common, there will be many descendants of those individuals some of whom will today undergo commercial ancestral Y-DNA testing. Hence the surnames of one's medieval ancestor's neighbours will be revealed in today's Y-DNA test results.

Early 19th century census data demonstrates that Irish surnames could still be found concentrated in the areas from which they originated. One can therefore use census data to determine the origin of the surnames that appear in one's Y-DNA results, identifying an area common to all, and reveal ones 'Paternal Ancestral Genetic Homeland.' The genetic homeland is the small area (usually within a 5-mile radius) where one's ancestors lived for hundreds if not thousands of years. It is the area where one's ancestor first inherited his surname surrounded by relatives who inherited others. It is the area where ones ancestors left their mark in its placenames, its history, and in the DNA of its current inhabitants. Since modern science can pinpoint a paternal ancestral genetic homeland, it can also be used to confirm it by DNA testing individuals from the pinpointed area.

Notes of caution!

- 1. Science has revealed that each of the estimated 1,500 distinct Irish surnames had a single founding male ancestor ('a surname Adam'), that is an estimated 1,500 Adams from whom anyone with Irish ancestry (and with one of those unique surnames) can trace direct descent. But science has demonstrated that only 50% of individuals with a particular Irish surname will be related to the surnames founding male ancestor, the other 50% of people will have an association that has arisen because of what are called 'non-paternal events,' usually a result of adoption or maternal transfer of the surname.
- 2. Often people are looking for their DNA results to trace back to a specific area. One must remember that the results reflect one's ancestor's neighbours from around 1,000 years ago. As a result, if your recent Irish ancestors were descended from 9th Century Viking raiders, 12th Century conquering Normans, or 16th Century Planters, your Y-DNA results will reflect earlier English, Scottish, Welsh, and possibly Scandinavian origin. I have estimated that only 60% of those with Irish paternal ancestry are related to the pre-Christian Celtic tribes of Ireland. One must approach this process with an open mind!

Interpreting the Y-DNA test results

To pinpoint a paternal ancestral genetic homeland, one must first identify the surnames that appear as one's closest genetic matches upon commercial ancestral Y-DNA testing. Those surnames will typically reflect the surnames of one's ancestral neighbours. Mr. McEvoy's closest and most frequent surname matches as revealed by commercial ancestral Y-DNA STR and SNP testing are detailed in Figures 1, 2, and 3.

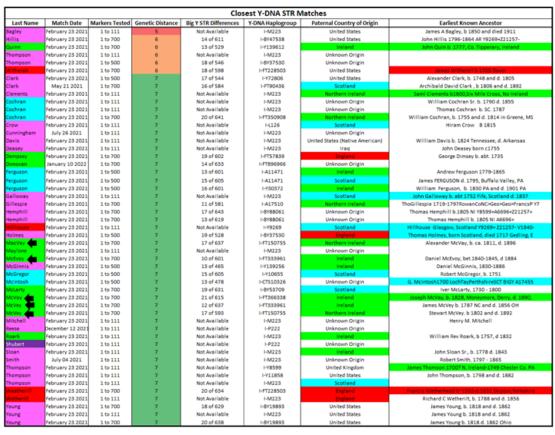


Figure 1: Mr. McEvoy's closest genetic surnames matches as revealed in a Y-DNA STR database. The more Y-DNA STR markers that two people share the more recent their shared paternal ancestor once lived. The test subject's closest genetic surname matches are NOT RANDOM; he matches other individuals named McEvoy, MacVay, McVay, and McVey (black arrows). In addition, many of the test subject's genetic relatives have surnames that recur among his matches. Highlighted fond indicates a surnames associated ethnicity or location of an earliest paternal ancestor; Irish/Ireland, Scottish/Scotland, Irish/Scottish-associated, English/England.

Closest SNP Matches			
Surname	Frequencey	SNP Difference	Min. Est. Time to a shared paternal Ancestor
McEvoy	2	20	500
O'Neill	1	24	600
Ferguson	4	24	600
McConville	1	25	625
Humphries	1	26	650
Laughlin	1	26	650
Hunter	8	26	650
Allen	1	27	675
Watson	1	27	675
Coyle	1	28	700
McGinnis	1	28	700
McKenzie	1	28	700
Lavery	2	28	700
Hannah/Hannas	3	28	700
Barnes	1	29	725
Callihan	1	29	725
Mackfall	2	29	725
Adams	1	30	750
Clark	1	30	750
Henretta	1	30	750
LOWRY	1	30	750
Ross	1	30	750
Gillespie/Gillespy	2	30	750

Figure 2: Mr. McEvoy's closest genetic surnames matches as revealed in a Y-DNA SNP database. The test subject's closest Y-DNA SNP genetic surname matches are NOT RANDOM; they are a mix of Irish and Scottish associated surnames, some of which also recur among his SNP revealed genetic relatives. The dominance of Irish surnames among the test subject's closest SNP matches indicates a most recent paternal ancestral link with Ireland. Highlighted font indicates a surnames associated ethnicity or location of an earliest paternal ancestor; Irish/Ireland, Scottish/Scotland, Irish/Scottish, Mainland European. Research at Irish and Scottish Origenes reveals that a SNP mutation will appear on average every 80 years in a linear relationship (son, father, grandfather). However, these commercial DNA revealed relationships are not linear and hence a single SNP difference is on average equivalent to a generation (25 years).

Upon Y-DNA testing Mr. McEvoy was a close Y-DNA genetic match to others named McEvoy, MacVay, McVay, and McVey who tested independently, see **Figure 1**. This indicates that the test subject is directly descended from a 'McEvoy-Adam,' literally the first male (Adam) to take that surname who lived when paternally inherited surnames first appeared. The test subject's closest Y-DNA SNP genetic surname matches are dominated by Irish surnames, which indicates that he is descended from a Gaelic Irish McEvoy-Adam, see **Figure 2**. While the STRs examined in the Y-DNA111 test are prone to replication or deletion with each generation, SNPs are far more permanent mutations. Commercial ancestral SNP testing offers a more accurate glimpse of the precise chronological development of surnames among a group of related males. Block display of the test subject's closest SNP matches illustrates how the McEvoy, Callahin, O'Neill, McConville, and McGinnis, surnames arose among a group of related Gaelic Irish I-M223^{+ve} males living in a specific part of Ireland between 500 and 700 years ago, see **Figures 2** and **3**.



Figure 3: Block display of Mr. McEvoy's closest SNP matches. While the STRs examined in the Y-DNA111 test are prone to replication or deletion with each generation, SNPs are far more permanent mutations. SNP testing offers a far more accurate glimpse of the precise chronological development of surnames among a group of related males. The test subject's closest SNP results reveal that the McEvoy (black arrows), O'Neill (pink arrow), Callihan (yellow arrow), McConville (red arrow) and McGinnis (purple arrow) surnames arose among related Gaelic Irish males who shared a common male ancestor approximately 700 years ago.

Irish McEvoy

The 1911 census of Ireland revealed individuals named McAvoy, McAvey, McEvay, McEvey, McEvoy, McVey, McVeagh, and McVeigh. Distribution mapping reveals that those individuals were not scattered uniformly throughout Ireland but concentrated within specific counties, see **Figure 4**. Since surnames arose in an agriculturally based society, farmers with each surname can still be found concentrated in the area where their surname first appeared or in the areas where one's ancestors first settled. Distribution mapping of Irish farmers named 'McAvoy, McAvey, McEvay, McEvey, McEvoy, McVey, McVeagh, and McVeigh reveals that they concentrate in 9 distinct locations, see **Figure 5**. This indicates that there were potentially 9 geographically and genetically distinct clans within Ireland that gave rise to the test subject's 'McEvoy' surname. Since the test subject matched others named McEvoy upon Y-DNA testing, his paternal ancestry is linked to one of the nine locations within Ireland that are associated with his McEvoy surname.

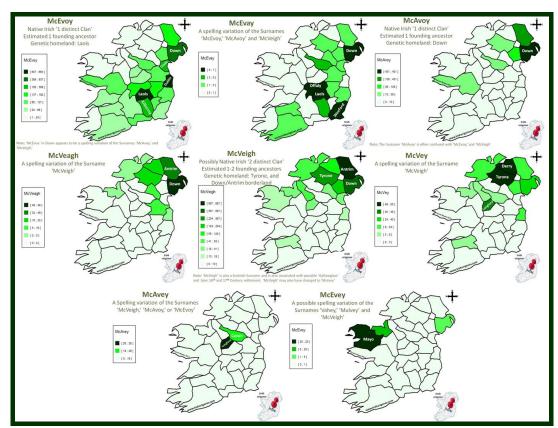


Figure 4: Distribution of the McAvoy, McAvey, McEvay, McEvay, McEvoy, McVey, McVeagh, and McVeigh surnames within Ireland. An examination of the distribution of all individuals named McAvoy, McAvey, McEvay, McEvay, McEvoy, McVeagh, and McVeigh in 1911 reveals that they are not distributed evenly but concentrated in specific counties. Image taken from the Irish Surnames database, free to view https://www.irishorigenes.com/surnames-database.

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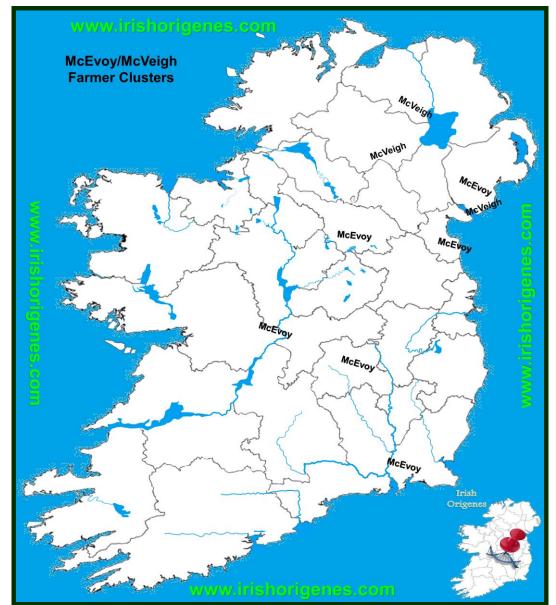


Figure 5: The McEvoy and McVeigh farming community. An examination of the distribution of farmers named McAvoy, McAvey, McEvay, McEvey, McEvoy, McVey, McVeagh, and McVeigh reveals 9 geographically distinct groups. Each group may represent an unrelated (genetically distinct) McEvoy clan. Since the test subject's Y-DNA results reveal that his paternal ancestry is linked with an area of Ireland that is associated with the McEvoy surname, his paternal ancestry is connected to one of nine locations within Ireland. Each surname is positioned in the location where farmers with that surname concentrated in early census data. The most common spelling is detailed in each location. Surnames are positioned as they appear on the Irish Origenes Medieval Surnames map https://www.origenesmaps.com/maps/medieval-surnames-ireland. A surname search function is available at https://analysis.irishorigenes.com/surnames.

A Paternal Ancestral link with Southeast Ulster

The method of using genetic surname matches as revealed by commercial ancestral Y-DNA testing to pinpoint a paternal ancestral genetic homeland works by exploiting the link between the Y chromosome, surname, and land, which are typically passed from father to son through the generations. In the absence of a link to the land the process becomes more challenging. The link with the land is greatest among the farming community and since farmers can still be found farming the land where their

ancestor lived when he first inherited his surname, or where one's ancestor first settled, one can plot where farmers with the surnames that appear in one's Y-DNA results originate and identify an area common to all. This means that upon Y-DNA testing a McVeigh from County Armagh will be a Y-DNA genetic match to males with surnames like Donnelly and O'Hagan; surnames associated with the southwestern shores of Lough Neagh in Ulster. In contrast, a McEvoy from County Wexford will be a genetic match to males with surnames like Kavanagh, O'Toole, and O'Byrne, surnames associated with Southeast Ireland. Hence, it is the test subject's *closest* Irish surname matches revealed upon Y-DNA testing, as a snapshot of the surnames of his ancestral neighbour/relatives, which will reveal where his McEvoy founding-Adam lived.

An examination of the test subject's Y-DNA results reveals that the McEvoy, Callaghan (Callihan), O'Neill, McConville, and McGinnis surnames arose among a group of related Gaelic Irish males, see Figure 3. Distribution mapping of farmers named McEvoy, Callaghan (Callihan), O'Neill, McConville, and McGinnis/McGuinness reveals that they only occur together within the southern borderlands of Counties Armagh and Down in Southeast Ulster, see Figure 6. An examination of the Medieval surnames of the Armagh and Down borderlands reveals surnames that appear as close Y-DNA SNP genetic matches to Mr. McEvoy, see Figure 7. However, the Medieval surnames map also reveals a large area in Armagh and Down that is completely devoid of Gaelic Irish surnames, which corresponds to areas settled by Scots and English during the Plantation of Ulster, see Figure 8. The Gaelic Irish and Plantation Scots and English have been neighbours for hundreds of years, and unsurprisingly an examination of the Irish Origenes Plantation surnames map reveals several surnames that also appear among the test subject's closest Y-DNA SNP matches, the result of non-paternal events that occurred between Irish Gaels and Planter Scots and English that occurred after 1600AD, see Figures 3 and 8.

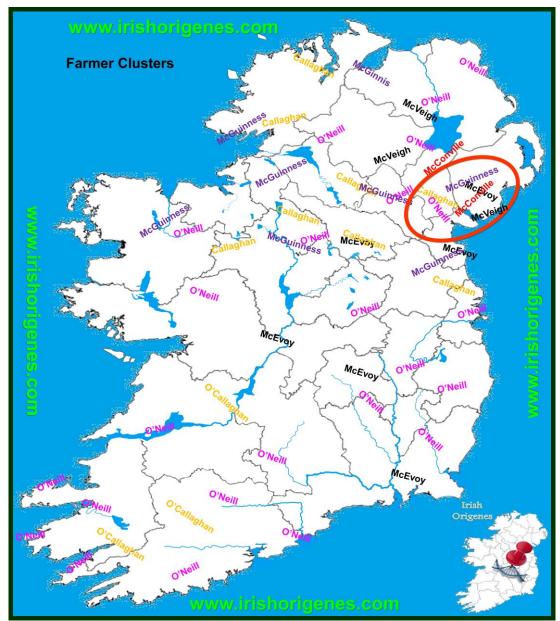


Figure 6: Mr. McEvoy's closest SNP matches reveal a most recent paternal ancestral origin within Southeast Ulster. The McEvoy, Callaghan (Callihan), O'Neill, McConville, and McGinnis/McGuinness surnames appear among the test subject's closest Gaelic Irish SNP matches. By plotting the locations where farmers named McEvoy, Callaghan, O'Neill, McConville, and McGinnis/McGuinness concentrated in early census data it reveals that they only occur together within Southeast Ulster (orange circle). The McEvoy, Callaghan, O'Neill, McConville, and McGuinness surnames arose among a tribal group of I-M223^{+ve} related males living in Southeast Ulster. Each surname has been placed on the map in the area where farmers with that surname concentrate in early census data. The most common spelling is detailed in each location. Surnames are positioned as they appear on the Irish Origenes Medieval Surnames map https://www.origenesmaps.com/maps/medieval-surnames-ireland. A surname search function is available at https://analysis.irishorigenes.com/surnames.



Figure 7: The Medieval Surnames of the Armagh and Down borderlands in Southeast Ulster. An examination of the Armagh and Down borderlands as it appears on the Irish Origenes Medieval Surnames and DNA map reveals the McEvoys and McVeighs (red arrows) together with surnames that appear as close SNP matches (orange arrows) to the test subject. This map also reveals a large area that is devoid of Gaelic Irish surnames, which was settled by Scots and English from 1600AD onwards. Each surname is positioned in the location where farmers with each surname concentrate in early census data. The most common spelling is detailed in each location. Detail taken from the Irish Origenes Medieval Surnames map, free to view at https://www.origenesmaps.com/maps/medieval-surnames-ireland. Surname search function available at https://analysis.irishorigenes.com/surnames.



Figure 8: The Plantation Surnames of the Armagh and Down borderlands in Southeast Ulster. An examination of the Armagh and Down borderlands as it appears on the Irish Origenes Plantation Surnames of Ireland Map reveals an area heavily colonised by Scottish and English settlers. The map reveals surnames that also appear as close SNP (orange arrow) matches to the test subject, the result of non-paternal events that have occurred between the native Irish and Scots and English settlers who have been close neighbours for over 400 years. Each surname is positioned in the location where farmers with each surname concentrate in early census data. The most common spelling is detailed in each location. Detail taken from the Irish Origenes Plantation Surnames map, free to view at https://www.origenesmaps.com. Surname search function available at https://analysis.irishorigenes.com/surnames.

The Clan Territories of Southeast Ulster

By the 14th and 15th Centuries Ireland was a patchwork of territories which were dominated by over 400 of the most notable Irish clans and Norman families. The Irish Origenes Clan Territories of Ireland Map was reconstructed based on the location of castles and towerhouses and their known historical link to a particular clan or family. Commercial ancestral Y-DNA testing and research at Irish Origenes has revealed that almost everyone with an Irish paternal ancestral origin will be genetically related to at least one of the prominent clans or families that once ruled over one's Irish paternal ancestral genetic homeland. An examination of the clan territories of Southeast Ulster as it appears on the Irish Origenes Clan map reveals an area dominated by Gaelic Irish clans, some of whom appear among the test subject's closest genetic relatives, see **Figures 3** and **9**.

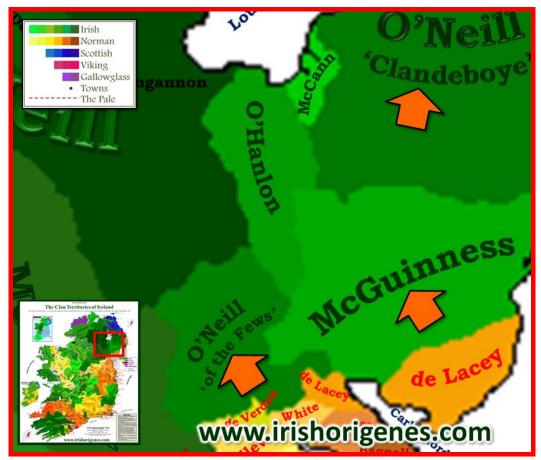


Figure 9: The principal Medieval Clans and Families of Southeast Ulster. Southeast Ulster was dominated by clans of Gaelic Irish origin. The test subject's Y-DNA results reveal that he shares common ancestry with both the McGuinness and O'Neill clans (orange arrows) that dominated much of Southeast Ulster. The lands of these prominent Irish Chieftains were gradually confiscated and settled by Scottish and English settlers during the Plantation of Ulster that began in 1600AD. The clan territories map was reconstructed based on castle locations and their historically associated clans and families, free to view at https://www.origenesmaps.com/maps/clan-territories-ireland.

Mr. McEvoy's Irish Paternal Ancestral Genetic Homeland

An examination of the Armagh and Down borderlands reveals McEvoys and McVeaghs on either side of the Eastern Mourne Mountains in County Down, and it is there that the test subject's Irish paternal ancestral genetic homeland is to be found,

see **Figure 10**. It was there that the test subject's paternal ancestor first took the McEvoy surname, and where he lived surrounded by male relatives who took other surnames like O'Neill, Callaghan, McConville, and McGuinness. When one's ancestors have lived in an area for a long time one will often find evidence of their ancestral links with that location in the surrounding monuments and placenames. An examination of the Eastern Mourne Mountains reveals the townlands of Ballyveaghbeg and more (Upper and Lower), see **Figures 10** and **11**. The townlands of 'Ballyveagh' are clear references to the test subject's McEvoy/McVeagh paternal ancestors. Townlands are Ireland's oldest and smallest unit of geographical land division, and many of their names predate the Norman settlement of Ireland (1169AD). Many townlands, like Ballyveagh, are named after the Gaelic clans that lived there, and hence Ballyveagh marks the centre of his Irish origin. The McEvoys/McVeaghs will also have left evidence of their ancestral links with this area in both the history of this location, and in the DNA of the current inhabitants.

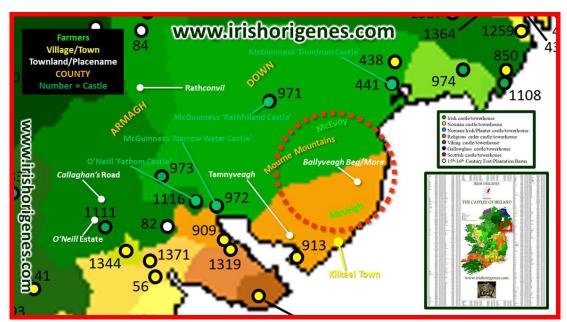


Figure 10: Mr. McEvoy's Irish Paternal Ancestral Genetic Homeland. An examination of the Armagh and Down borderlands reveals the McEvoys and McVeaghs farming that lands that surround the townlands of Ballyveaghbeg and more, and it is there that the test subject's paternal ancestral genetic homeland (orange broken circle) is to be found. It was there that the test subject's paternal ancestor lived when he first acquired the McEvoy/McVeagh surname. His ancestor lived surrounded by Gaelic Irish relatives who took other surnames like McGuinness, O'Neill, McConville and Callaghan. The McEvoys will have left evidence of their long ancestral links with this area in its history and in the DNA of the current inhabitants. Image taken from the Irish Origenes Castles of Ireland map, free to view: https://www.origenesmaps.com/maps/castles-ireland.



Figure 11: View north towards the Mourne Mountains form Ballyveaghmore Road.

FROM GAULISH REFUGEE TO IRISH GAEL

The test subject's I-M223 Haplogroup is quite remarkable in its distribution among the neighbouring Gaelic lands of Southwest Scotland and Southeast Ulster, see Figure 12. In fact, the appearance of Gaelic Scottish surnames associated with Southwest Scotland among the test subject's more distant Y-DNA results reveals that his paternal ancestors had originally resided in Southwest Scotland before making the short crossing into Southeast Ulster, potentially hundreds of years prior to the appearance of surnames, see Figure 13. In addition, deeper Y-DNA SNP testing indicates an earlier link with Central Europe, and that his I-M223 ancestors were in fact the Celtic people who dominated Central Europe until the Roman Conquest of Gaul in the 1st Century BC. It was Roman Conquest that resulted in his paternal Celtic/Gaulish ancestors seeking refuge in Britain. However, the Roman Conquest of Britain would push his Gaulish ancestors north into Scotland, and eventually into Ireland, an event that would simultaneously see his ancestors evolve from Gauls to Gaels.

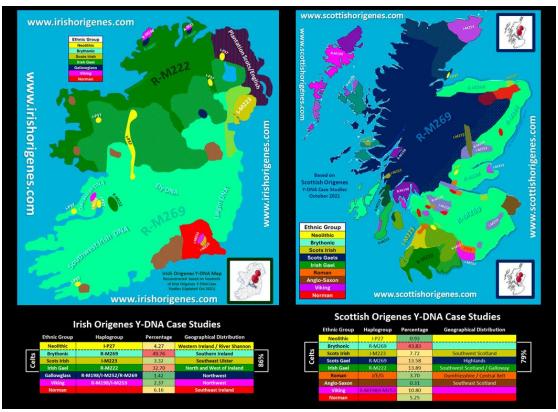


Figure 12: The Origenes Y-DNA Map of Ireland and Scotland. Research at Irish Origenes reveals that I-M223 Gael/Gaulish Y-DNA Case Studies dominate Southeast Ulster in Ireland and Southwest Scotland.

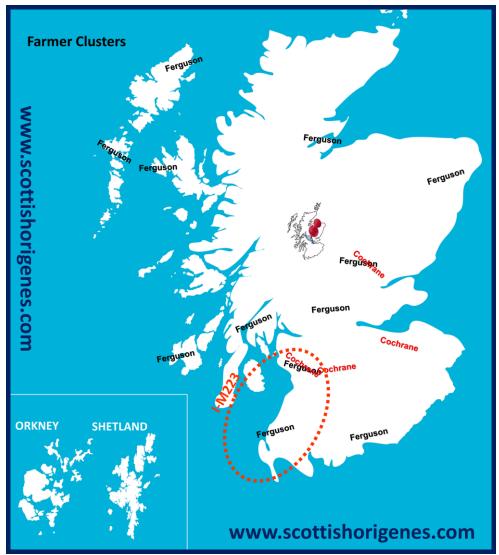


Figure 13: The Earlier Scottish paternal origin within Southwest Scotland. Ferguson and Cochrane appear among the test subject's closest recurring Y-DNA STR revealed exclusively Scottish surnames (**Figure 1**). Overlay mapping reveals that those surnames occur together within Southwest Scotland in the area where the test subject's I-M223 predominates in the Scottish population. These results confirm an earlier paternal origin within Southwest Scotland (prior to the appearance of surnames (pre 1000AD).

How to confirm the McEvoy Genetic Homeland

One must keep in mind that this is a scientific DNA approach to identifying an origin. The paternal ancestral origin within Southeast Ulster can be confirmed by Y-DNA testing McEvoy/McVeagh farmers from County Down.

Contact Irish Origenes for a FREE consultation tyronebowes@gmail.com

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