DNA INSTALMENT THREE

ANALYSIS OF THE GRIER, ETC. DNA CHART TOGETHER WITH COMMENTARY

GENERAL

Because there has been much speculation over the years about the Grier(son) MacGregor relationship, part of my study has been an attempt to correlate the YDNA of the respective clans/families, using data assembled in the MacGregor DNA project on the Family Tree DNA (FTDNA) website, together with that listed in the Grier DNA project, and one or two other sources including personal correspondence. But the study suffers from the limited availability of data, particularly the absence of tests completed at 67 STR loci, and the small number of SNP identified. That means that I have had to make assumptions in places, particularly about which haplogroup a person might belong to. In spite of what FTDNA publishes on the web site about their estimates of haplogroup ("*Please note that for any predicted results we see no reason for ordering a SNP test to confirm the Haplogroup.*"), I remain convinced that the generalised results they publish are unhelpful to the broad sweep of R1b individuals, because that haplogroup is old enough to have had significant numbers of mutations which obscure the divisions into families. If individuals believe they cannot afford to have their SNP identified, a 67 loci test will supply significant information which, in the case of M222+ individuals, can, I think, assist genealogical research.

I should start by reminding readers that the rate of change in this science is great. Due to the increasing numbers of SNPs (definers of haplogroups or their sub-clades) being discovered, there is an increasing tendency for the sub-clade to be defined by its own identifier rather than the increasingly lengthy nomenclature assigned by some organisations. In particular, where I wrote about R1b1c7 in 2007, as that identifier has expanded out to R1b1b2a1b5b in one plan, and R1b1b2a1a2f2 (May '09) in another, it is now seen as sensible to talk about the sub-clade in terms of its youngest known SNP. Thus, for ease of both writing and understanding, I shall write about M222 (which is shorthand for R-M222+ and which by definition if discovered on test presupposes all of the "upstream" SNPs that must be there for it to exist). Similarly, when I write about R1b, I am using that as shorthand to encompass all downstream sub-clades. There is, as I write, an experiment in progress which seeks the existence (if any) of SNPs downstream, and therefore younger, of M222 and others.

The most important aspect of this study is that it confirms my earlier assertion that no one so far tested among the Grier(son)/Greer group (which I'll call the Griers for simplicity) descends from the MacGregor main line, contrary to some published, and some oral-within-family genealogies, which have Grierson of Lag as descended from a probably fictional Malcolm MacGregor. Whilst none of the Griersons have paper trails which link them to Lag, all have Scots ancestry. On the other hand, some of the Irish Greers claim to be descended from a cadet line of the Lag family, but have no paper trail. It should be noted that, in the chart, the STR counts highlighted in yellow represent a Genetic Difference (GD) of one from the associated derived modal for that haplogroup. This is useful in determining familial differences, I think.

The Grier names break down into three similarly sized groups. These appear to be an R1b1b2 sub-group, an R-M222+ sub-group, and the remainder seem to be in Haplogroup I1. Clearly, no one in I1 can descend on the male line from an R1b ancestor, so there is no chance whatever of a MacGregor or Grierson of Lag relationship in terms of YDNA. I have earlier speculated that their genetic lineage derives from the marauding Vikings and their visits to the British isles of about 1000 years ago. Below is a confirmation of that view.

HAPLOGROUP I1

Dr Richard McGregor has written, inter alia (at the MacGregor DNA website):

"It is not unlikely that the members of this haplogroup have ancestors who settled on the western coast or islands of Scotland or, where there is known Irish ancestry, probably from those Vikings who settled in the east coast of Ireland."

He also wrote:

".....it is quite clear that there are two separate groups. One way of interpreting this is that they belong to separate invasion groups, a) Norwegian/Swedish based and b) Denmark/Frisian based. The Viking names include Grier/Greer, a MacGregor alias but, there is also a group of Grier/Greer in the R1b group so this might indicate either separate origins or, the intrusion of a Viking male line into the Grier line where the child has retained the mother's surname."

An examination of the I1 group of Haplotypes in the Grier chart suggests that there are, indeed, two distinct lines and several families represented here. Although the majority specify Ireland as the (known) ancestral homeland, a number also report family legends suggesting that a Scottish heritage predated the Irish settlement. One or two lines carry the legend of descent from the Grier(son)s of Lag, and as it is widely reported that a Grier (changed to Greer) line did migrate to Ulster, it may be within this family that we see the "Viking intrusion". There is no evidence (or rumour) that the Lag family descended from Vikings.

But, the most likely explanation in my view is that an Irish line of Gregors (named for the succession of Popes, and pronounced Greer in the Gaelic) arose as a separate entity. At some point, the Viking intrusion occurred, converting a proportion of the R1b line to I1. This proposition raises the possibility that, contrary to frequent genealogical assertion, several almost completely unrelated tribes began using the same (or very similar) surname within the last millennium, named for some particular famous (probably religious) figure or figures, and which were destined to cause unrelenting confusion to later generations of genealogists. The advent of haplogroup testing has become the first sound methodology for differentiating those tribes.

There are at least five "layers" within the I haplogroup below I1 (I1a-I1e), involving at least seven SNPs, so SNP testing would add significantly to knowledge here.

HAPLOGROUP R1b

Haplogroup R1b, in the words of Wikipedia is the:

".....most frequently occurring Y-chromosome haplogroup in Western Europe. More specifically, its frequency is highest in Atlantic Europe and, due to European emigration, in North America, South America, and Australia. In southern England, the frequency of R1b is about 70%, and in parts of north and western England, northern Spain, Portugal, France, Wales, Scotland, and Ireland the frequency of R1b is greater than 90%."

The subclades of R1b that interest us are a fair way downstream from the founder, there being numerous SNPs defining them. Unfortunately, only a few of the results I have seen have included tests for SNPs, so there has been significant guess work. FTDNA has seen fit to predict haplogroups for testees, as shown in the chart, and most predictions are for R1b1b2, not only amongst the Grier(son)/Greer names, but also the MacGregor groups of names. I suspect that when representatives of the various families ultimately realise that SNP testing is essential in R1b, we will see some significant rethinking about relationships. FTDNA is very conservative in prediction; my guess is that we will see two or three more downstream SNPs in most cases amongst these people.

Dr McGregor wrote:

"The haplogroup R1b is by far the largest in the MacGregor project. There are three distinct sub groups within it.

- *Those who have a DNA signature with 11 at DYS391 and conform to the 'Atlantic Modal Haplotype'*
- *Those who have a DNA signature with 11 at DYS391 and are almost certainly indigenous to Ireland. This group includes Irish McGregors/Grier/Grierson (you may see this DNA sequence referred to as the 'Irish Modal Haplotype')*
- *Those who have a DNA signature with 10 at DYS391. This group includes the main line MacGregor "*

The group Dr McGregor was addressing included the M222+ Haplogroup members, and I assume that this is what he means by the second dot point. However, in my view he has oversimplified these sub groups, largely because he is attempting to analyse solely from haplotype. I think that, for instance, no one of the above sub-groups is more "indigenous to Ireland" than any other. There seems little doubt, as a general statement, that the ancestor of some of the testees with an Irish Modal Haplotype (IMH) derive from an Irish ancestor who lived circa 400AD. It could also be said (but not proved) that those encompassed by the first and third dot points had Irish ancestors 1500 years ago, and where they derive more recently from Scottish locations, their ancestor may have been a part of the Dalriadic migration(s), or crossed the Irish Sea at a later time. Equally, they may well have been Pictish bloodlines, with no Irish connection at all. Without knowledge of haplogroup, gained from SNP testing, we cannot be certain, and it is could be misleading to speculate. But speculate I will, and I believe that some of the R1b1b2 Greers represent early Irish R1b

derivatives, and some are from a line or lines that have spent perhaps a millennium in Scotland.

HAPLOGROUP R-M222

You will see in that part of the chart labelled M222+ several 67 STR tests. The two Griersons with haplogroup in green on the chart are the only 67 loci candidates who have also been tested for SNP. Their position 38-67 results are clear matches for the M222+ modal except for one random mutation, and the "family" 13 vs 12 at 444. This is a very rare mutation in M222+, and the fact that all Griers tested at 67 have it is probably significant. But the main point about this sequence is that it is different from the usual R1b1b2 sequence, and is therefore a valuable identifier for M222+ even when the M222 SNP has not been tested for.

So, from this, we can deduce the clade for those Greers who have tested at 67 loci, and match (or very nearly match) the M222 modal. It is clear that of the six Greers tested at 67 loci, five are M222 and are therefore placed in that group. Now, working backwards, by matching the positions 1-37 results, I have estimated all those Greers below the Griersons in the chart to be M222+. Further, there are clearly three family lines in this group. You will also note that, compared to the R1b1b2 group, there are a number of clear differences at several locations which, I think, serve to reinforce the different haplogroups. Above the Griersons we see Greer families I estimate on a "more probably than not" basis to be M222.

What follows are my estimates from STR testing, and apply to R1b nominees when seeking the M222 mutation. Firstly, the majority 25 at 390 is a pointer. The Griersons showing 24 there represent a back mutation toward their ancestral R1b. The 13 at 385b is consistent with the modal. The significant number of 14s at 389-1 vs some 13s in the Griersons might serve to identify Scots and Irish M222 lines. The almost universal 14 at 392 is an M222 pointer. The 18 at 458 may be a family pointer, and thus perhaps record NKDEK should be in the M222 group. M222's 448=18 is a strong identifier, as is 449=30. 464a/b at 15/16 is a strong family identifier. YCA2b is consistent in M222 at 23. There are other hints, eg 570 and CDYa where there are consistent differences. In the loci 38-67 zone there are several pointers, even given the small data set, but also when compared to the MacGregor Scots mainline, see loci 413a and 481, both slow-moving STRs. So I have fair confidence in my estimates, but will happily advance some others into the M222 clade should further STR testing show appropriate characteristics.

The M222 Mutation

The M222 mutation has been variously estimated as 2000-3000 years old. There seems to be evidence that one family (Niall, in Ireland), has generated a disproportionate number of descendants from an ancestor of about 1600 years ago. But there is no consensus about where the first person carrying the mutation lived. Some advocate Ireland, others suggest that he was early Celtic in the European heartland, others think the area encompassed by modern Spain and France. Given the substantial genetic difference we see in some members of this haplogroup when one compares the Irish, the Scottish and the mainland Europeans of today, one is led to a

possible conclusion that the mutation predated the Celtic migrations into Britain, and that some members carrying it arrived independently at a variety of places, including South West Scotland and Ireland. We are not yet knowledgeable enough to make a judgement about location. But the discovery of an SNP downstream of M222 might provide a breakthrough in separating the respective migratory streams.

THE WAY AHEAD

I intend to continue this exercise in educated guesswork as I find more data sets. I would be very grateful for any input, whether it be corrections or additions to my table, or better estimates from interested people about the Grier ancestry. It might be useful to have some knowledge of oral tradition within families, to go with the earliest known ancestor, although, as I have found in my family, the tendency in the past to romanticise the family can be very misleading. I have come to terms with the fact that, contrary to family myth, I am not descended from Rob Roy in the male line! What is just as exciting though is that I might be descended from the Pictish rulers of Galloway. Who knows? Let's find out.

The United States is blessed (I hope) with many Griersons. It is disappointing to note that, as a major player in the DNA testing business, it has only been able to supply one set of test results for this name. I would like to think that among those interested in genealogy in the US there will be some of my family willing to advance the scientific cause.

Finally, it is a matter of some regret to me that I didn't make the effort to convince Sir Michael Grierson of Lag to take a YDNA test before he passed on. Perhaps he would have ignored me, but I didn't try, and it seems that we will have a great deal more trouble in ascertaining the Lag DNA now that he is gone. It certainly would have made it easier for the Lord Lyon to find his successor (or at least discount imposters), had we that data. As it stands, the Grierson "Clan" is without a Chieftain.

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