THE OXFORD GENETIC ATLAS PROJECT AND THE CLASSIFICATION OF SOME R1B RESULTS IN THE CLAN DONNACHAIDH DNA PROJECT

Pending the formation of groups, some Reid, Robertson and other results have been grouped in clusters according to matches on a certain number of markers. These groupings are based on Kevin Campbell's analysis of the R1b results in the Oxford Genetic Atlas Project (OGAP) [1]. The Oxford Genetic Atlas Project provided the basis of Professor Bryan Sykes' book *Blood of the Isles*[2] which analyses the genetic history of the British Isles. The Project data can be seen online[3].

Kevin Campbell assigned OGAP designations sequentially, in decreasing frequency of occurrence. These provide convenient subdivisions pending the establishment of family groups. **OGAP designations have been added to some R1b classifications**, indicated by O and a number indicating the frequency of the haplotype (thus O01 indicates the haplotype most frequently found in the Oxford Genetic Atlas survey, O02, the second most frequent, and so on).

Family groups are indicated by two letters at the end: AA, AB, etc. These groups are also indicated by a colour.

It will be noted that the frequency of the Clan Donnachaidh results does not fully correspond to the frequency with which these results are found in Britain. In particular the North-West Irish haplotype, OGAP8 (which includes the haplotype associated with Niall of the Nine Hostages) has occurred more frequently among Clan Donnachaidh members than in the British population sampled for the Oxford Genetic Atlas Project.

In some other ways the results reflect the general population pattern: the two most frequent results among Clan Donnachaidh participants are also the most common in the population at large. Variations are revealed when these haplotypes are expanded – some participants in each grouping are apparently not closely related in the recent historical period.

As certain haplotypes are very frequent, the most commonly found results are generally not identified as family groups unless there is a match on 25 or 37 markers. (Some less frequent results have been identified as a family match on the basis of 12 markers.)

Any marker can mutate at any time, though some much less frequently than others, so it is not always possible immediately to identify which men are related within an historical timeframe when a difference is noted on one of the first four markers, unless there is documentary information to show that a mutation has occurred within a family group. As more data becomes available it may be possible and indeed necessary to regroup some results.

The participants in the most commonly found groupings tend to have a number of high resolution matches with participants with different surnames.

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[1] *Geographic Patterns of Haplogroup R1b in the British Isles*, Kevin D. Campbell, *Journal of Genetic Genealogy, Spring 2007*; http://www.jogg.info/31/campbell.pdf.
[2] *Blood of the Isles: exploring the genetic roots of our tribal history*, Bryan Sykes, 2006.
[3] http://www.bloodoftheisles.net/results.html.

The regional affinities have been calculated on the basis of sampling and do not constitute proof of individual family origins. Many of these results are found throughout Britain; only certain concentrations are mentioned below.

Order of frequency of haplotype in Clan Donnachaidh	Frequency of haplotype in OGAP survey (OGAP1 = most frequent)	Regional affinities	393	390	19	391	388	439	389i	392	389ii
1	**OGAP1**	Widespread core haplotype (Atlantic Modal Haplotype)	13	24	14	11	12	12	13	13	16
2	**OGAP2**	Widespread core haplotype	13	24	14	10	12	12	13	13	16
3	**OGAP8**	North-West Irish haplotype	13	25	14	11	12	12	13	14	16
4	**OGAP4**	Ubiquitous across all areas of Scotland and exceptionally strong in Grampian, Tayside and Strathclyde. Also among the strongest haplotypes present in Argyll and the Hebrides.	13	24	14	10	12	12	13	13	17
5	**OGAP3**	Widespread core haplotype.	13	23	14	11	12	12	13	13	16
6	**OGAP5**	Very prevalent haplotype that shows up predominantly in Ireland.	13	24	14	11	12	12	14	13	16
7	**OGAP7**	Found in Tayside and Fife in particular.	13	23	14	10	12	12	13	13	16
7	**OGAP6**	Prominent in Argyll and the Hebrides.	13	24	14	11	12	12	13	13	17
8	**OGAP14**	In Scotland shows an affinity for Tayside and Fife.	13	24	14	11	12	12	12	13	16
9	**OGAP17**	Particularly strong in Northern England.	13	24	15	10	12	12	13	13	16
9	**OGAP19**	Strong correlation with Ireland and the Scottish Highlands.	13	25	14	11	12	12	13	13	17
10	**OGAP9**	Shows an affinity for the Northern Isles and the Borders.	13	24	15	11	12	12	13	13	16
10	**OGAP10**	Associations with Ireland and the Hebrides; supports the conclusion of a Mesolithic northern migration along the coast of Ireland.	13	25	14	11	12	12	13	13	16
10	**OGAP11**	Shows an affinity for the Northern Isles (Orkney and Shetland) and the Borders.	14	24	14	11	12	12	13	13	16
10	**OGAP12**	In Scotland shows an affinity for the Borders.	13	24	14	10	12	12	14	13	16
10	**OGAP20**	In Scotland shows an affinity for Tayside and Fife.	12	24	14	11	12	12	13	13	16