

THE Y-DNA PROJECT

January 2016

Quarterly report from Elizabeth O'Donoghue/Ross, the Society's Group Administrator

It's hard to believe that another year has passed and we are now in the year 2016. I assumed the responsibility of Group Administrator over ten years ago, and the progress we've made over that time is truly extraordinary.

When we only had STRs with which to compare, we developed what we thought was a comprehensive picture of the relatedness of the different tribes whose surname was a variation of the name O'Donoghue/Donohoe. With the advent of SNP testing, we began to clarify that relatedness, recognizing that the identifiable genetic signatures, such as the Irish Type I of the Cavan Group I Donohoes and the Irish Type II haplotype of the Cashel Eóganacht/Glens tribe were defined by their own SNPs - M222 and CTS4466 respectively. But, and an important but, we also discovered that all the relationships were not as close as we thought they were. In fact, some were not nearly as close as we had expected. Further subsets of these SNPs split these tribes, some more dramatically than others.

This phenomenon held true for other surname projects, not just Irish ones either. We in the genetic genealogy community had to revise our interpretations of the relatednesses in our projects. It may have caused some disappointments, but in the end, knowledge trumps preconceived notions, and I have always felt it was better to know than to assume. It became apparent that the holders of any surname of an eponymous ancestor (named after a particular person) were not all genetically related through the male line. The average is about 50-60% of those tested. This does not diminish the validity of all carriers of that surname being part of that tribe, something which the Clans of Ireland, for instance, point out on their website - <http://www.clansofireland.ie/baile/who%20is%20a%20clan>.

We continue to maintain the discussion and details of our Y-DNA project on the Society website - <http://www.odonoghue.co.uk/projects/1.html> - with a quarterly update of the spreadsheet of the results, though the Family Tree website is regularly updated with the most current date - <https://www.familyreedna.com/public/ODonoghue/>.

In addition to the citizen scientists who are studying the modern DNA of all those who have tested, the professional scientists and academics have for some years now been gathering data from ancient bones. There is a growing database of the DNA of ancient specimens all around the world; and there is a paper just published - *Neolithic and Bronze Age migration to Ireland and establishment of the insular Atlantic genome* - by a collaboration between Smurfit Institute of Genetics, Trinity College, and School of Geography, Archaeology and Palaeoecology, Queen's University Belfast, headed by Professor Dan Bradley, in which the DNA of four prehistoric individuals has been tested for the first time. It includes a Neolithic woman from a megalithic burial at Ballynahatty, Co. Down, estimated to be 3343–3020 BC based on associated artefacts and three Bronze Age males from Rathlin Island off the coast of Co. Antrim estimated to be of

an age of 2026–1534 BC. The paper can be downloaded for free at <http://m.pnas.org/content/suppl/2015/12/23/1518445113.DCSupplemental/pnas.1518445113.sapp.pdf>.

The female was determined to be of predominantly Near Eastern origin, indicating there was an influx of early farmers to the island during the Neolithic era; and the males had a substantial heritage of Bronze Age herders going back to the Pontic Steppes. Interestingly, these discoveries do not contradict the early origin myths of the *Lebor Gabála Éirenn* (The Book of Invasions). It's possible that those myths had more truth in them than current scholars are prepared to consider.

This is not the forum to go into more detail of the paper and its results, but anyone interested can access the paper and its accompanying appendix - [SI Appendix, Section S1](#) - listed on page 1 of the document.

We have new members, upgraded STR results and new SNP results throughout the groups in the project. When we have the new spreadsheet loaded onto the Society website, Rod will let you know. If you are curious, you can see them all on the Family Tree spreadsheet right now at <https://www.familytreedna.com/public/ODonoghue/>.

Happy New Year to all - may 2016 bring us more surprises!