

**Dalton International DNA Project Report:
Update, June 6, 2019**

. . . there is probably no person capable of the least degree of reflection, who has not, in an idle moment, amused himself with some little speculation of the probable origin of his own name.

Mark Antony Lower, *English Surnames: Essays on Family Nomenclature*,
Preface to first edition, (1842), p.viii

What is DNA, this molecule that allows us to travel so far back in the past—this history book we carry around like a gift from a long line of ancestors?

Spencer Wells, National Geographic, 2007, p.13

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Introduction

It has been seven (7) decades since scientists demonstrated that DNA is the molecule of heredity. Since then the only constant in the world of DNA has been change—the evolution of information about DNA. We are now at a time when new information seems to become available weekly through scientific journals, print and television, as well as social media.

This report is an update from the report of 2014 for members of the Dalton International DNA Project (DIDP). It includes a summary of information and recommendations. Some of the information included is known by long term members but may be new to those who have recently joined the project.

One of the biggest changes in the world of DNA testing is in the area of privacy and management of accounts at the different companies, including FTDNA. So, I have included information on this topic at the conclusion of the report with a section on Ethical-Legal Social Issues for all members.

Membership

As of May, 2019, the Dalton International DNA Project has 265 members, an increase of 60 members from May, 2015. In the last nine (9) years an average of four (4) people have joined each month.

According to Family Tree DNA, Group A (United States) continues to be the largest family group with 52 members; B (Ireland) is the second largest with 15 members. At present there are 21 R1b singletons that are ungrouped along with 78 other members who have not had their results analyzed and thus have not been grouped.

Recommendation #1 Genetic consultant to review the groupings by DNA classification and add the ungrouped members to a Family group. Can the 17 DNA Family groups be further classified and organized into to one of the four genealogy groups? Or, will review of classification result in additional groups?

Summary of DNA Tests

Y-DNA Tests

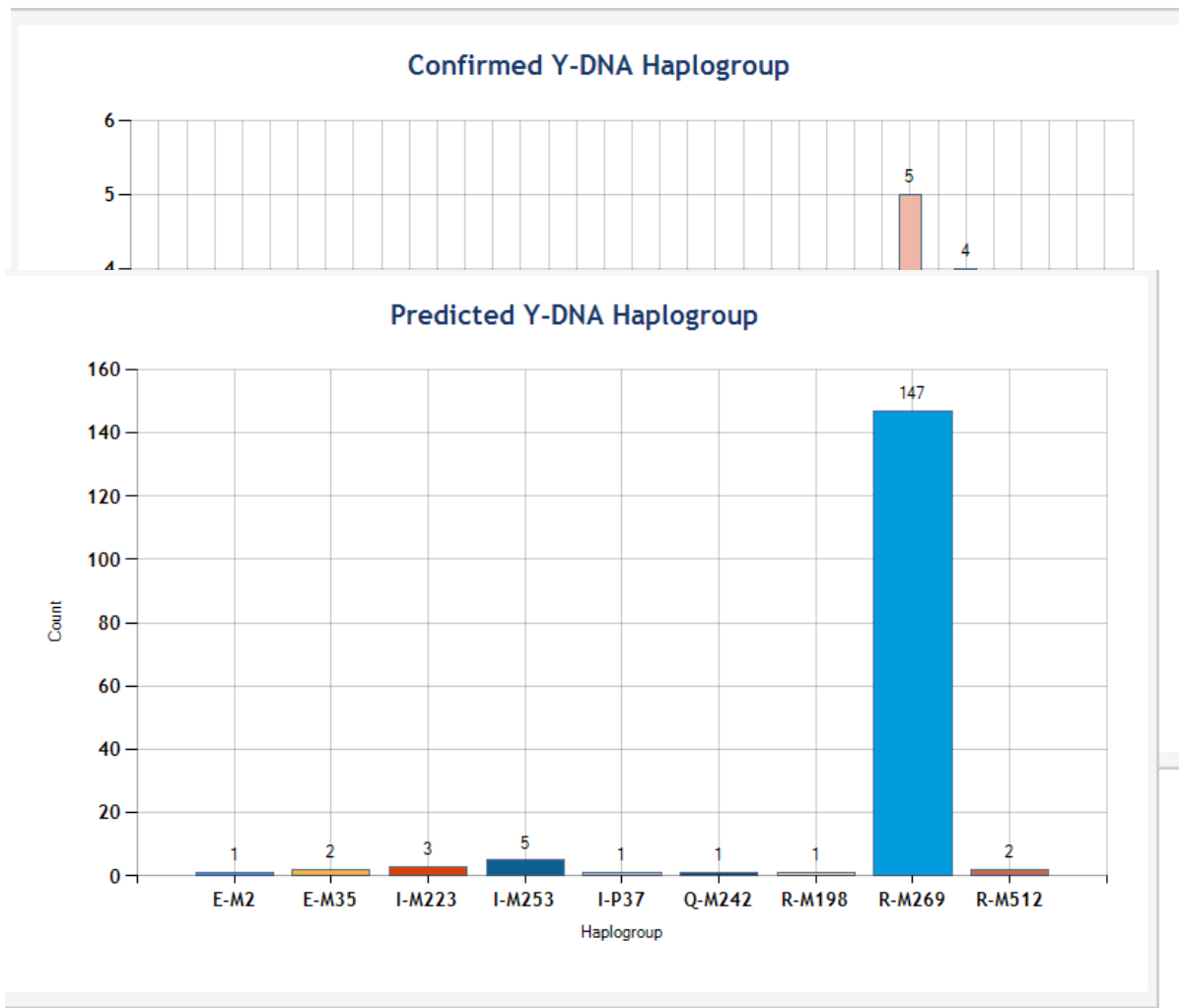
Members have had a Y DNA test for different numbers of markers. This could possibly be a contributing factor to the number of members who are singletons or are “ungrouped,” i.e. there is not enough data to place them in a group. Some ungrouped members are just due to not having a consultant for a period of time.

Number of Members	Minimum number of markers that can be analyzed
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Number of Members	Minimum number of markers that can be analyzed
213	12
209	25
187	37
113	67
29	111
12	Big-Y

STRs (short tandem repeats) continue to be used to determine Y haplogroups and to classify individual testers into family groups. However, STRs are no longer the “gold standard” used by most Y projects. SNPs (single nucleotide polymorphisms) are now used to confirm or redefine Y haplogroups. As an example, R1b1a1a2 has been changed to RM269, named after the terminal SNP defining this haplogroup. Actually each haplogroup has several SNPs that can confirm it but the terminal SNP is the one used to name it. For a sample to belong to a particular haplogroup and/or subclade, a Y-DNA sample must test positive for any one of the SNPs appearing in that group.

FTDNA offers single SNP and/or testing with a package of SNPs to confirm a haplogroup and/or subclade. At least 38 SNPs are associated with RM269.



At

present, according to FTDNA, the majority of Y-DNA testers (163) have a “predicted” haplogroup. Only 48 testers have a “confirmed” Y -DNA haplogroup. (see charts below from FTDNA)

Recommendation #2: Members who have tested at 12, 25, and 37 markers consider retesting to 67 or 111 markers. Also consider including SNP testing of their sample too. Why? To:

- (1) assist with the difficulties in grouping;
- (2) help reduce the possibility of convergence;
- (3) further clarify information about ancestry and possible geographic regions of their ancestors;
- (4) help identify branches within a genetic family and to build the mutation history of the Y haplotree.

If a sample is available at FTDNA, it can be used to test for more markers. A member will be charged for the retest but will not have to give another sample. Some will have to resend a sample but will be charged less than full price as it is an upgrade. The more members who test at the greater number of markers, and for terminal SNPs, the more accurate will be the family group classifications. **Note:** Hopefully by combining

this information with the genealogy lines of descent, more “common ancestors” will be identified.

Tests for individual SNPs are \$39 (at this time); a “packet” of haplogroup defining SNPs is \$139. **Note:** Ordering an increased number of markers and SNP testing will provide the most information, but at increased cost to the member. However, most tests are on sale in June.

Big-Y testing, done by 12 members, can confirm the group specific SNPs. Using this information, with the testers permission, appropriate SNPs can be identified and tested by other members. Big Y testing may be recommended to other members of DIDP for identification of a descendant line, but at present it is not recommended for all project members.

Mitochondrial DNA Tests

61 of the 265 members, 44 males and 17 females, have done mtDNA. These members are grouped into 9 distinct haplogroups and further subclades within the haplogroups. This information has not been included in prior reports but could help answer questions of ancestry origins and generational time.

Autosomal DNA Tests

72 members have done their autosomal DNA (family finder test at FTDNA). If this has been used by individuals to further identify relationships, it is not reflected by the information of FTDNA or the website.

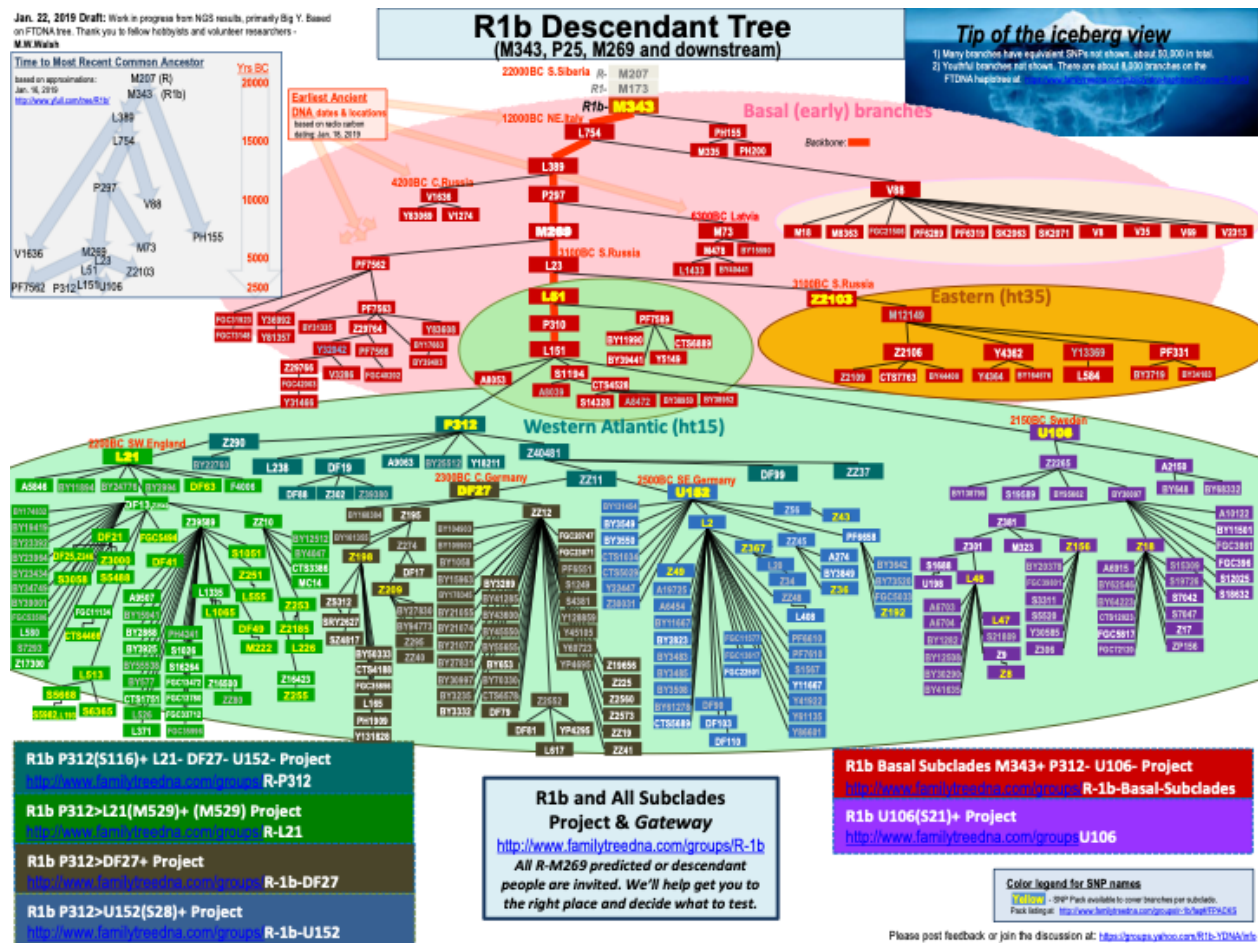
Recommendation #3: Review mtDNA data and autosomal data; compare to Y-DNA data re: age of haplogroup, origins of ancestors, to see if data adds information to the DIDP origin or generational time information.

Haplogroup Data

The most common haplogroup in the Dalton International DNA Project is a subclade of R1b: RM269. (See haplogroup tree on page 6) M269 is the terminal (determining) SNP for this group. This haplogroup dates to the Chalcolithic Age, a transition between the Neolithic and the Bronze Age; 5th-3rd millennia BC. It is the most common Y haplogroup in Europe, especially the British Isles.

Recommendation #4: Continue to build/expand on the phylogenetic tree completed by Chris Pomery. Build the tree for both Y-DNA and mtDNA tests completed by Dalton members.

Recommendation #5: Build a descendant tree for each geographic family group, using Y mutations and genealogy trees of members. Start with Virginia Daltons, as an example.



For a complete outline of the R1b phylogenetic tree visit:
https://www.eupedia.com/europe/Haplogroup_R1b_Y-DNA.shtml#R1b-subclades

Ethical-Legal and Social Issues

Ethical-Legal Issues

In the first quarter of 2019, Family Tree DNA allowed Law Enforcement to use their autosomal DNA database (**the Y-DNA database was not and will not be available to Law Enforcement**) to try to find a violent criminal. They did this in violation of their Terms of Service. After the fact, they notified all the members in their database impacted by their decision. This created a great deal of discussion in the genealogical community via blogs and social media. Eventually, two groups emerged: group A who were in favor of FTDNA’s decision and support Law Enforcement’s use of the database, even without the users consent; and group B who support the database use by Law Enforcement, but ONLY with consent of the individual. Many people felt that what FTDNA did was unethical and voiced their opinions of social media.

As of May 2019, FTDNA changed their Terms of Service and their Privacy Statement to reflect giving Law Enforcement access to their autosomal database. Any member who has tested autosomal DNA at FTDNA can read the new policies by clicking on the links below from the FTDNA website.

<https://www.familytreedna.com/legal/terms-of-service>

<https://www.familytreedna.com/legal/privacy-statement>

Beneficiary for a DNA sample

As membership grows, and years pass, it may be advantageous to retest a member's Y-DNA sample with a new technology to confirm a genotype or a descendant line. If the member himself or the relative who ordered the test is no longer living, this can be an issue. FTDNA provides a Beneficiary Form for all testers to fill out. This grants the designated beneficiary control of the sample after death of the tester. The beneficiary can then be contacted and has the right to decide whether a sample can be retested, etc. If there is no beneficiary, the sample will be stored by FTDNA for 25 years and then discarded. Further testing is not allowed without permission.

Recommendation #6: All project members consider designating a beneficiary for their Y-DNA sample, if they have not already done so. At FTDNA the form can be found by logging into the homepage, clicking on your kit number, then going to account settings. In account settings click on account information. Beneficiary information can be found here.

Social Issues

FTDNA offers software to build websites for project groups. The USA Dalton DNA Family group has acted on this offer and built a website for the American Daltons. They have found it to be an effective recruitment tool.

<https://www.familytreedna.com/groups/dalton/about/background>

Is it time to think about updating the different Dalton Genealogical Society websites?

Recommendation #7: Consider updating and renovating the Dalton International DNA Project website using FTDNA project format. Link to the Dalton Genealogical Society homepage.

Additional points to consider:

1. Members may wish to test their autosomal DNA at LivingDNA, a British based company that analyzes atDNA and can state where, geographically, a person is from in the UK and Ireland. It may also provide matches to Daltons who are not currently members. <https://livingdna.com>
2. Would members value an "updates" section on the website for current issues in genealogy and/or DNA? Other?