

Hunting through Matches – Handout

This handout provides information from the 'Hunting through Matches' talk presented online as part of the 'Irish Lines and Female Finds' conference held by the British Isles Family History Society of Greater Ottawa on 26 September 2021.

Why use DNA tests for Genealogy?

DNA is inherited from your biological parents who inherited from their parents. You therefore get DNA from your ancestors going back although it gets diluted at every generation and is not evenly passed on so the amount you get from each ancestor is different. As your cousins will inherit DNA from the common ancestors you share, you will share DNA if you both received enough from your common ancestor(s). This means that you can identify genetic cousins who have also taken a DNA test at the same company. By using the information from DNA tests and traditional genealogy research, it is possible in many cases to work out who the common ancestors are. The DNA tests give you a list of matches who are your genetic relations. Your genetic cousins only appear in your match list if they have also tested (or uploaded their DNA data) at the same company.

The DNA matches allow you to identify common ancestors which in turn:

- Helps verify known family relationship
- Expands your family tree to living people
- Helps break down brickwalls
- Provides new avenues for research
- Identifies misattributed parentage events and allows adoptions and illegitimacies to be solved

Your DNA matches can be grouped into sets of matches that all share common ancestors (see Grouping Matches below). To work out the common ancestor, you need to work out who each match is and what their family tree is.

DNA Testing Results

The 'Match List' presents a list of people, who have taken the same test type and at the same company, who share some DNA with you. These 'matches' will share a common ancestor with you. By clicking on each person, you reach a 'Match Page' that provides further information for each match.

For each of your matches, you get the following information:

- Amount of shared DNA
- Predicted relationship based on the amount of shared DNA (note however that the exact relationship could be different from the prediction; this could be a big difference if only a small amount of DNA is shared)
- Family Tree or Surname information (depends on company and if the 'match' has added information)
- Personal information (location of match, age range) – this is accessible on the person's Profile Page at Ancestry (click on the match's name at the top of the Match Page to get to the Profile Page)
- Shared Matches – these are other 'matches' who also share DNA with your match (e.g. all three of you share common DNA so are likely to all be related to the same common ancestor)
- Predicted common ancestor (only some companies provide a prediction and they are only a good guess based on your trees and your matches' trees (therefore you will need to verify them yourself))

You need to understand the possible relationships with your match (given the amount of shared cM); be able to identify surnames, family trees, places and shared matches for your matches. Each analysis is different: some are easy to solve; others take much more work; some need patience until a better match is added to the database; and some are impossible to solve. DNA is just another source of information in our research and, as with any source, helps towards achieving different levels of success.

DNA Analysis

One approach to DNA analysis involves taking a match on your list and trying to work out who your common ancestor is. The recommended strategy is to look at the matches with the highest shared DNA (cM) first. However, ones with trees and more surname/place information will be easier than ones without that information. If a match is a shared match with a known match, this means you know the likely line that they are related on.

There are a number of strategies depending on the information available. In each case, first look at the amount of shared DNA (cM) and work out what the possible relationships are which gives an indication of how far back the common ancestor is likely to be. Use the statistics provided by the company (click on the amount of shared DNA or use the

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information button depending on the company) or use the Shared cM Project <https://dnainter.com/tools/sharedcmv4> hosted on the DNA Painter website.

Known Match – if, when you look at the match, you know who they are from the relationship and name (e.g. they are a known cousin), add a note to this effect. If at AncestryDNA, confirm the relationship (via ‘Do you recognize them?’ and add coloured dot(s) as appropriate (see below for details).

Predicted Ancestor – if the company provides a suggested common ancestor (available at AncestryDNA and MyHeritageDNA – more information provided below), it is worth reviewing the suggestion to see if the relationship is supported by documentation. Often the path for the relationship will include one or more Ancestry or MyHeritage trees and these are only as good as whoever entered these. However often the suggestion is correct and the common ancestor has been identified. Be wary of any predicated relations for low (<15cM) matches as these may be false matches who you co-incidentally share a genealogical connection. Do not use low matches to ‘rove’ an unknown relationship.

	Natalie Leggatt	1st cousin 1x removed 342 cM 5% shared DNA Father's side	Public linked tree 6,767 People Common ancestor	View match
	Neil Bradburn	2nd – 3rd Cousin 319 cM 5% shared DNA Mother's side	No Trees	Do you recognize them? Yes Learn more
Extended Family				
	Albert Wood	2nd – 3rd Cousin 159 cM 2% shared DNA Mother's side	Public linked tree 9,542 People Common ancestor	Do you recognize them? Yes Learn more
	Donald Scott	2nd – 3rd Cousin 103 cM 1% shared DNA Mother's side	Public linked tree 7 People Common ancestor	Do you recognize them? Yes Learn more
	Graham Smith	2nd – 3rd Cousin 100 cM 1% shared DNA Mother's side	Public linked tree 679 People	Do you recognize them? Yes Learn more

Family Tree – review family trees to see if there are any surnames or places you recognise. Often you will need to continue to build their trees to identify the point at which you share a common ancestor. You can do this on paper, in a word document or build your own tree in software. At AncestryDNA, if the tree is private or the kit is managed by someone else, check the match’s profile page to see if they have any other trees. Be wary of Unlinked trees as the home person may not be the tester. If the kit is managed by someone (or the tree is owned by someone else), consider if the tester is the spouse of the owner or related in another way.

Any shared matches with the match will (in most cases) share a common ancestor on the same line. Once you have identified a common ancestor, examine your shared matches with the match and make a note (or assign a coloured dot at AncestryDNA – see below) to indicate which family line the shared match is likely to be on. You can also link your match to your family tree at Ancestry (see below). At this point you may decide to analyse each of the shared matches or you may want to return to the main match list. Either is a valid approach.

It is worth noting that there will be matches for which, despite having lots of information, you still cannot find a common ancestor. This could be due to a misattributed parentage event (e.g. the wrong parent is given on paper documentation) on either your line or theirs or the match is on a line where you have a brickwall or you have become stuck on their tree. Keep all the records on these matches as more information may appear in time that helps you finally solve them.

Predicted Common Ancestor

A common ancestor may be predicated at AncestryDNA via the Common Ancestors and ThruLines features and at MyHeritageDNA via the Theory of Family Relativity feature.

For Common Ancestors and ThruLines at AncestryDNA to work you need to link your DNA to yourself in your tree. To do this, go to the DNA home page and click on ‘Settings’ in the top right corner. Under ‘Link Tree’, select the family tree you want to use to connect your DNA (if you have more than one tree). Start to type in your name (if the DNA kit is yours) and then select yourself from the dropdown.

Once you have linked your DNA, AncestryDNA will start to generate ‘Common Ancestors’. These are suggestions for your potential common ancestors with the match and should be treated as hints not fact. If a common ancestor(s) is identified, these are listed in a box on the left-hand side of the page. In addition, if a common ancestor has been

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identified, this will show as a green leaf in the corner of the person's box on their family tree. Any surnames that appear in your tree as well are coloured green. An example extract:



If you click on one of the common ancestor suggestions, the possible connection is listed. These also link into a system called ThruLines which finds all paths to that common ancestor within all your DNA matches. Note these are only suggestions created from your tree and other trees on Ancestry and are only as good as those trees. Note that there is a chance that the actual DNA relationship is inherited from a different path. Be careful of suggestions with less than 10cM of shared DNA. Although these do not prove that you inherited the shared DNA from the identified common ancestor, they may provide useful genealogical paper connections.

Grouping Matches

As you start to identify common ancestors for matches, you can use shared matches to start to group your matches into family groups. This is also called Clustering. You can also group together matches that you have not found a common ancestor for but that all have shared matches with each other to help to narrow down the possible routes to a common ancestor. As matches are gradually added to the groups, the information available to identify the common ancestor is expanded and may allow unknown matches to be solved. Always keep an open mind that the grouping may be wrong if the shared matches are through three different common ancestors.

There are a number of ways to record the groupings. The main way for most companies is through keeping your own record of the groups. One approach is by using Excel. In particular, the Leeds Method can help identify each key line (<https://www.danaleeds.com/dna-color-clustering-the-leeds-method-for-easily-visualizing-matches/> although this only works if you have a number of 1st or 2nd cousin matches). It is worth extending to include matches below 90cM if there are only a limited number above 90cM. Ideally you want at least 30 or 40 matches in your list. Alternatively, you can cluster your matches using Word or on paper with coloured pens. AncestryDNA has their own system that allows you to group your matches by assigning coloured dots to your matches.

Coloured dots at AncestryDNA

For each match at AncestryDNA, there is an option to 'Add to group'. AncestryDNA allows up to 24 custom groups to be made (e.g. you can call them whatever you wish to) and you can choose a colour to assign to the group. It is suggested that you start to create groups of shared matches called 'Group 1', 'Group 2', etc. Start with any second cousins or more distant (note do not use 1C2R as a starting point as they will share both of your grandparents on that line and will form a large group). Then look at their shared matches and add them to the group and keep looking through shared matches to people in that group and assign the coloured dot to each shared match. Then start with the next match on your list that does not yet have a coloured dot and start the process again with a new coloured dot and group number. As you identify which family group they belong to, update the name of the group to include the surname(s) (e.g. 'Group 1 – Bennett', 'Group 2 – Smith/Lageu'). This will leave you with groups that are identified and groups of matches that you cannot solve. There is benefit of creating a group for 'Paternal' and 'Maternal' and 'Side unknown' to allow filtering. Groups labelled 'No shared matches', 'Further investigation required' or 'Impossible to solve' can be useful. It is completely up to you but can be incredibly helpful.

If a match has shared matches with different coloured dots, this can be for a variety of reasons. Use caution as these are either related to you relatively closely and hence share several of your ancestral lines with you or they are related to some of their shared matches via a different line than the line you are related to them. In this case, it is recommended to add both coloured dots to the person but not copy those colours onto their shared matches hence keeping the two groups separate. It is also worth adding a note to remind yourself that they are matching into more than one group. More information on using the coloured dots is available on the AncestryDNA help pages - <https://support.ancestry.com/s/article/Grouping-and-Filtering-AncestryDNA-Matches>.

Auto-clustering

Auto-clustering is a tool that uses your DNA results to generate groups/clusters for you automatically. It is available at MyHeritageDNA as an inbuilt tool and can be used with 23andMe and FamilyTreeDNA at the Genetic Affairs website

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(<https://www.geneticaffairs.com/>). In addition to a fun visual as they sort the matches, the tables below the matrix give you the shared match groups and links to the trees provided by the matches where available.

Linking DNA to Ancestry Tree

AncestryDNA provide a tool to link any matches into your tree. This allows you to quickly see where they fit in your tree which can be useful when you are then examining their shared matches. To connect the match to your tree, click on the little tree branch symbol (see image below) and select them within your tree. It will be the tree that has your DNA connected to it and you need to have already entered them into that tree.



Dealing with Limited Information

The more complex matches are those with limited or no family tree information.

- Even a very small tree can be used to find a basis of a tree to develop yourself.
- Look at the match's profile page (click on their name at the top of the Match Page at AncestryDNA or their name on the Match List at FamilyTreeDNA or it is included at the top of the Match Page for MyHeritageDNA, 23andMe and LivingDNA). Use the information (if provided) to identify possible people it could be. If it is a more unusual name, you may be able to trace them.
- If they have a photo, search for their name on Facebook or LinkedIn and see if anyone looks the same (or uses the same profile photo if you're lucky).
- Look for nicknames on other sites such as Twitter or through Google.
- Search for names in obituaries (especially useful in the USA) through Google (or your preferred search engine) and newspaper websites.
- Look at the shared matches for any clues for which line they are related to.
- Contact the match to find out more about them. It is recommended that you do not ask for personal information about living people but something less intrusive like the surnames of their grandparents. By providing some information about yourself (although not a full family history as this can be off-putting), it can put them at ease that your enquiry is genuine. Also accept that many people take a test for reasons other than researching their family tree and may not check their messages, do not know who their ancestors are (especially if adopted) or may not be willing to share information. Be understanding of this and do not expect an answer.

Sometimes, however, with these matches it may not be possible to identify enough information to even start to hunt for the common ancestor. Ensure you have recorded what you have found (if anything) and set aside for a time when more information may become available.

Quick and Dirty Trees

A 'Quick and Dirty' tree is one where you are quickly trying to find a common ancestor with a match. You research back all their lines until you find where you have a connection. Be wary if you find a connection on one line, there may be another connection on a line you have not researched. In generating a 'quick and dirty' tree, you do not need to follow normal good practice. Use of other people's trees, only one piece of evidence for a relationship or transcriptions rather than original documents are acceptable. However, once a connection is found, you do need to confirm the 'quick and dirty' research with more detailed research before confirming the relationship and adding it to your own tree.

'Quick and dirty' trees can be done on paper, computer files or on an electronic tree. If you create a DNA working tree on Ancestry, it is possible to put lots of unlinked trees into a single tree (mine is called 'Mia DNA Investigations') and, if you find common ancestors between shared DNA matches (even if you have not yet found your connection), these will be easier to spot within a single tree. If creating this at Ancestry, it is advisable to make it private and non-searchable as it will not be a thoroughly researched tree and therefore may have mistakes so should not be shared in public. In addition, if you find someone in another tree, you can link that person to your 'quick and dirty' tree by clicking on 'Tools' dropdown on right-hand side and choosing 'Save to Tree'.

Summary

The information provided in Hunting through Matches is just one part of understanding using DNA to support your family history research. DNA results provide another source of information to help progress your genealogy research but can open up new findings that cannot be found elsewhere, especially where the paper trail and biological trail differ. The best way to learn more about how to use DNA for your research is to practise and start using the skills and knowledge you

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have learnt. There are many more sources where you can learn more about DNA (see Further Reading below). Good luck and enjoy your new discoveries!

Further Reading

- Books
 - *The Family Tree Guide to DNA Testing and Genetic Genealogy* – Blaine T Bettinger – 2nd Edition
 - *Tracing Your Ancestors Using DNA* – Holton et al
 - *Your DNA Guide The Book* – Diahan Southard
- ISOGG wiki - https://isogg.org/wiki/Wiki_Welcome_Page
- Websites/'How to' pages
 - <https://www.familysearch.org/blog/en/genealogy-dna-test/>
 - <https://www.whodoyouthinkyouaremagazine.com/tutorials/dna/>
 - <https://www.family-tree.co.uk/dna-testing>
- Blogs
 - Crewys News – Debbie Kennett - <https://cruwys.blogspot.co.uk/>
 - DNAeXplained – Roberta Estes - <https://dna-explained.com/>
 - The DNA Geek – Leah Larkin - <http://thednageek.com/blog/>
 - The Genetic Genealogist – Blaine T Bettinger - <https://thegeneticgenealogist.com/>
- Facebook groups
 - DNA Help for Genealogy (UK) - <https://www.facebook.com/groups/AncestryUKDNA>
 - Genetic Genealogy Tips and Techniques - <https://www.facebook.com/groups/geneticgenealogytipsandtechniques>

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