Using Autosomal DNA for 18th and 19th Century Mysteries

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Using Autosomal DNA

There are some secret weapons you can use to learn about new matches and break through brick walls, including the following:

1. Shared Matching
2. Tree Building

Although not the only mechanisms to learn about matches, they are both extremely powerful!

1. Shared Matching

Shared Matches (also called "In Common With" matching) are potentially **the most powerful tool** for analyzing the results of DNA testing, yet they are underutilized and misunderstood. Together we will look at some of the ways to take advantage of these tools to work with our matches and break through brick walls.

Every major atDNA testing company (23andMe, AncestryDNA, Family Tree DNA, and MyHeritage) and the third-party tool GEDmatch offers a shared matching tool. Armed with shared matching and a few known cousins, you can almost instantly create **hypotheses** about how matches shared with the known cousins are related. This is also a recursive process, so you can create large genetic networks of clustered relatives.

In Common With at Family Tree DNA:
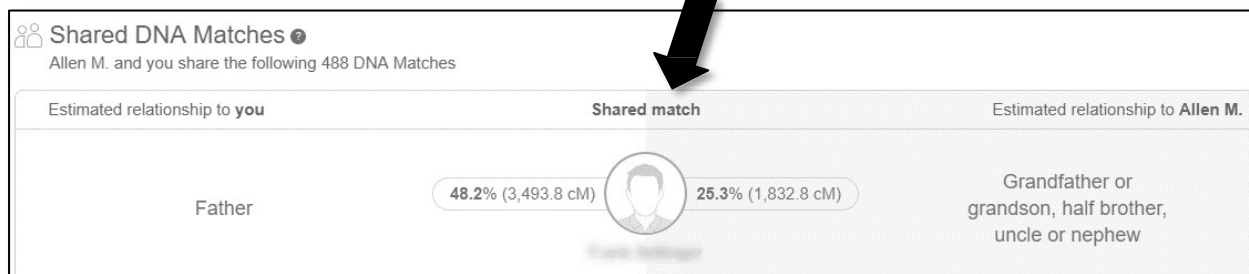

Shared Matches from AncestryDNA:

Predicted relationship: 3rd Cousins
Possible range: 3rd - 4th cousins (What does this mean?)
Confidence: Extremely High ⓘ

🖹 Add note

🌱 PEDIGREE AND SURNAMES ☰ SHARED MATCHES 📍 MAP AND LOCATIONS
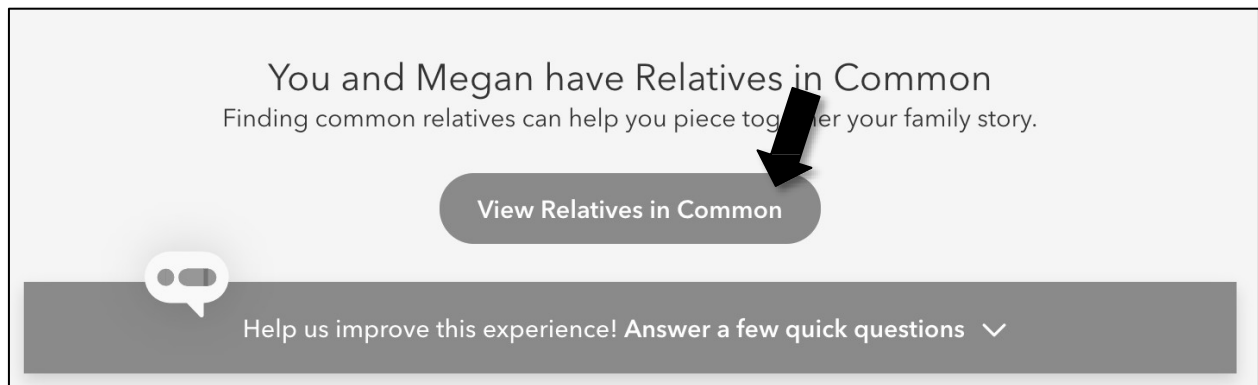
Shared Matches at MyHeritage:

👥 Shared DNA Matches ❓
Allen M. and you share the following 488 DNA Matches

Estimated relationship to **you**	Shared match	Estimated relationship to **Allen M.**
Father	48.2% (3,493.8 cM) 25.3% (1,832.8 cM)	Grandfather or grandson, half brother, uncle or nephew

Shared Matches at 23andMe:

You and Megan have Relatives in Common
Finding common relatives can help you piece together your family story.

View Relatives in Common

💬 Help us improve this experience! **Answer a few quick questions** ⌄

Using Genetic Networks

A genetic network, whether Shared Matching or Shared Segments (or both!), helps the genealogist form a group of people that provide HINTS to a shared ancestor or ancestral couple. The theory is essentially this: *it is reasonable to hypothesize (but NOT to conclude) that people in a Shared Match Cluster or a Shared Segment Cluster share the same common ancestor. Thus, if we can find the ancestral couple we share with one or more members of the cluster, we can hypothesize how we're related to the other members of the cluster!*

The steps for utilizing a genetic network are relatively straightforward:

1. **STEP 1**: Identify a Shared Match or Shared Segment Cluster
2. **STEP 2**: Review the trees of the individuals in the cluster (if any);
3. **STEP 3**: Identify one or more ancestors shared in common between your tree and the tree(s) of one or more individuals in the cluster. If there are no identified ancestors shared in common, review the trees for surnames and/or locations you recognize;
4. **STEP 4**: Formulate a hypothesis that you are related to the other members of the cluster via the same identified one or more ancestors; and
5. **STEP 5**: Pursue the hypothesis by gathering new evidence (build trees, contact matches, test other relatives, etc.).

2. Tree Building (Including "Research" Trees)

It is **ESSENTIAL** to build trees for your genetic matches, if you want to identify who they are and how they are related to you. If you can discover enough information about a match, often just a name or the name of a single ancestor, you can often build a tree for that match.

You can build a tree online, in your genealogy software, or however you prefer to build trees. Be sure to keep the tree private so that you don't spread misinformation or disrupt a match's tree. One type of tree built for genetic matches is the "Research" tree. A Research tree is a HINT generator (JUST LIKE ANY OTHER FAMILY TREE is a hint generator!) which is built without meeting accepted genealogical guidelines or standards. It is only to generate hypotheses about relationships, to fish for clues, and is NEVER used as standalone evidence.

There are two great YouTube videos about building Research trees. The first is an AncestryDNA video by Crista Cowan and Angie Bush. The video is approximately 23 minutes long and can be found at https://www.youtube.com/watch?v=VP8rUlZbmeA (or search "AncestryDNA Mirror Trees" at YouTube).

The second video is by me and is entitled "The Matching Tree Method." The video is approximately 20 minutes long and can be found at https://www.youtube.com/watch?v=UmOZXCxsqNU

Additional Tree Building Resources

- Bettinger, Blaine. Are You Doing Everything to Identify Your Matches? *The Genetic Genealogist*, 11 March 2017 (https://thegeneticgenealogist.com/2017/03/11/are-you-doing-everything-to-identify-your-matches/).
- Jones, Thomas. Perils of Source Snobbery, *OnBoard* 18 (May 2012) (published online at: https://bcgcertification.org/skillbuilding-perils-of-source-snobbery/).
- Hocker, Kris. Quick & Dirty Trees for DNA Matches, *A Pennsylvania Dutch Genealogy,* 25 Oct 2018 (http://www.krishocker.com/quick-dirty-trees-for-dna-matches/).

Additional Resources:

Here are for much more about shared matching:

- 23andMe. Relatives In Common Tool. *23andMe Customer Care* (https://customercare.23andme.com/hc/en-us/articles/221689668-Relatives-In-Common-Tool).
- Ancestry.com. AncestryDNA Shared Matches. *Ancestry Support*, 22 June 2017 (https://support.ancestry.com/s/article/AncestryDNA-Shared-Matches).
- Bettinger, Blaine. Clustering Shared Matches. *The Genetic Genealogist*, 3 January 2017 (https://thegeneticgenealogist.com/2017/01/03/clustering-shared-matches/).
- Bettinger, Blaine. Are You Doing Everything to Identify Your Matches? *The Genetic Genealogist*, 11 March 2017 (https://thegeneticgenealogist.com/2017/03/11/are-you-doing-everything-to-identify-your-matches/).
- Bettinger, Blaine. Using Shared Matches – A Quick Example. *The Genetic Genealogist*, 7 October 2017 (https://thegeneticgenealogist.com/2017/10/07/using-shared-matches-a-quick-example/).
- MyHeritage. Introducing the DNA Match Review Page. *MyHeritage Blog*, 22 August 2017 (https://blog.myheritage.com/2017/08/new-review-match-page-discover-how-you-are-related-to-your-dna-matches/).