DNA: I've Tested, Now What?

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FamilySearch

Have you taken a DNA test but aren't sure what to do with your results? In this class, we will discuss several different ways to incorporate DNA into your genealogical research projects.

First Steps

Ethnicity vs. Match Lists – many DNA testers simply look at their ethnicity results and move on. If you want to use DNA in your genealogical research, the real value is in your match lists. A match list is the list of people with whom you share DNA. Incorporating DNA into genealogical research usually uses match lists, not ethnicity results.

Family Trees and Messages – DNA is the only genealogical record type that requires collaboration with other people. In order to use DNA as part of your research process, you need to know how you are related to your matches. This means you need to be able to review the family trees for each of your matches. Because there is so much value in pairing family trees with match lists, make sure you contribute by creating or uploading your own family tree. Make sure your tree is public so others can see how you're related and connect your DNA results to your tree. Also make sure to reply to emails and messages from your DNA matches.

Track Your Matches: Most people who take a DNA test find themselves matched with hundreds, thousands, or even tens of thousands of other people who also took DNA tests. Find a way to track information about each of those matches including who they are, their relationship to you, and your common ancestor. Most DNA companies provide a note tool or feature. Or, you may want to download your match list and create a spreadsheet.

Your DNA Data: If you want to use your DNA to solve a tough research problem, Consider contributing your DNA to more than one DNA company. This will give you access to different ethnicity estimates, more matches, and even unique tools. Currently, you can upload your raw DNA data for free to MyHeritage, FamilyTreeDNA, and GEDMatch or you may want to take another DNA test with a different company. Also consider taking a different type of DNA test. For example, if your research problem is on your patrilineal line, make sure to take a yDNA test.

Cousin Matches

If you share enough DNA with another DNA tester, it is assumed that you and the match share a common ancestor. For each match, try to identify your most recent common ancestor (MRCA).

1. Choose one of your matches.
2. Explore their family tree, look for names that appear in your family tree.
3. Find the most recent common ancestral couple that exists on both your tree and their tree* (Some DNA companies, such as Ancestry or MyHeritage, will do this step for you.)
4. Determine your relationship to the match.

If you cannot identify a common ancestor, search for common locations. You may have to extend the ancestral lines of your match in order to identify the common ancestor.

Match Clusters: If your match has no tree, you may still be able to identify which of your family lines you share in common. A match cluster is a group of matches who appear to connect on the same family lines. To create a match cluster:

1. Identify a common ancestor for one of your matches
2. Use the “Shared” or “In Common With” feature to identify other matches who share DNA both with you and with that match.
3. Mark all connected matches as a single cluster.

DNA First Approach

For more recent genealogical problems, you can use DNA to identify biological parents, grandparents, and sometimes great grandparents by starting with DNA and then “fishing” in your DNA matches.

1. Start with a close match who has a tree.
2. Use shared and in-common with features to identify other matches who also share DNA.
3. Review the family trees of all related matches.
4. Identify the MRCA for the related matches; if you match multiple people who all descend from the same ancestral couple, it is likely you also descend from that couple.
5. Research that couple and identify all of their descendants.
6. Evaluate the descendants – look for connections with known information

Once you have identified a potential parent or relative, test their DNA or the DNA of known to descendants to prove or disprove that relationship.

Research First Approach

To solve more distant genealogical problems (oftentimes referred to as brick walls), start with research and then use DNA to confirm any hypothesized relationships.

1. Start by identifying a research goal, usually a relationship.
2. Using traditional paper trail records, identify possible relatives.
3. Hypothesis a relationship.
4. Use paper trail research to locate living descendants of your known ancestor.
5. Use paper trail research to locate living descendants of the hypothesized relative of your ancestor.
6. Test the DNA of both sets of living descendants.
7. Compare the DNA from both sets of living descendants.
8. Come to a conclusion.

A can conclude the hypothesized relationships exists if the DNA between multiple descendants of the known ancestor and multiple descendants of the hypothesized relative test at the expected rate and no other relationship can explain the DNA connection.

Conclusion

DNA can be used to solve genealogical research problems. However, testing your DNA is just one step in a larger process. Many research goals require the use of both DNA and traditional research. Once DNA is added to traditional paper trail research, it may be possible to finally solve some of your tough research problems.

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