FamilySearch

DNA: I've Tested, Now What?

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 genealogical research projects.

Cousin Matches

Each DNA company will provide a list of matches, or people who share matching DNA segments. It is assumed that you and each of your matches have a common ancestor or an ancestral couple from whom you both descend. For each match, search for that most recent common ancestor (MRCA).

1. Review your match list, 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*
4. Determine your relationship to the match.

Even if you and your match both have trees, you may not be able to find a common ancestor. Instead, search for surnames and locates common to both trees. Follow up with traditional research to find the common ancestor.

Some matches may have incomplete trees or may not have a family tree. If a match has no tree, contact them and ask for details about their ancestry. If a match has an incomplete tree, spend time researching their tree in order to identify that common ancestor.

Sort and filter your match list. Download it and create a spreadsheet so you can keep track of efforts. Sort your matches using features offered by the various DNA companies.

- After identifying a common ancestor, use a match to identify others in your match list who are also related that common ancestor. This can be done using shared or in-common with featuers.
- Identify matches who share the same segment of DNA using a chromosome browser or the Autosomal DNA Segment Analyzer on DNAGedcom. These individuals are likely related to you through the same ancestral couple.

*Some DNA companies (including Ancestry and MyHeritage) will identify a common ancestor if both you and your match have a family tree connected to your DNA and list the same ancestor or ancestral couple in your trees.

Brick Walls

Most genealogists eventually find themselves researching a family for whom it is difficult to identify relatives. These difficult research problems are often referred to as brick walls. When traditional research cannot solve a brick wall, DNA might be able to help.

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. If the DNA matches at the predicted rate and no other relationship can explain the connection, you can come to a conclusion regarding the relationship.

Adoptions

Many adoptees are using DNA to identify and locate their biological parents. If you are an adoptee, start by applying for any information from the state or adoption agency which handled your adoption. States and agencies which will not provide names and dates may provide non-identifying information.

Identifying biological parents usually involves comparing your DNA with as many other people as possible. Test your DNA with multiple DNA companies. Start by testing with Ancestry. Then, upload your raw data to FamilyTree DNA, GedMatch, and MyHeritage. Then test with 23andMe. If you are male, test your yDNA with FamilyTree DNA. Once you have tested your DNA, reviews your DNA matches.

1. Start with a close match.
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 between your birthdate and place, adoption place, and non-identifying information.

Once you have identified a potential parent or relative, test their DNA to confirm the relationship. Learn more about locating biological family using DNA at adoptiondna.blogspot.com

Unknown Parentage and NPEs

Many researchers discover their parents, grandparents, or great-grandparents didn't know their father or their parents. Others discover (usually through DNA), that the father of an ancestor was not his or her biological father (referred to as a non-paternal event or NPE). These cases can be solved using DNA by combining strategies of cousin matching, brick walls, and adoption cases.

1. Identify your research goal.
2. Sort through your match list – exclude matches who share DNA with known ancestors.
3. Review the trees of the remaining matches, find their most recent common ancestral couple.
4. Identify the descendants of that common ancestor.
5. Look for connections between known information about your ancestor and the descendants of the common ancestor.
6. Test additional descendants as needed.

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 those tough research questions.

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