

## DNA Boot Camp

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### **TALK 1: Interpreting Your Ancestry DNA Results:**

Ancestry (Ancestry.com) has the largest database of people tested, helpful tools for analyzing your DNA test results, and many family trees posted by people who've tested. They also have great tools for analyzing matches.

There are some drawbacks also. For example, there's no chromosome browser, communication must go through their system (not emails), and it requires a subscription. Nevertheless, it's my favorite DNA testing company.

#### **Background:**

- 1 Activate your DNA kit
- 2 Attach your DNA results to you in your family tree on Ancestry
  - a. Otherwise most of the following features won't work
  - b. Do it in Settings
- 3 Ancestry tests autosomal DNA (atDNA) and X-DNA (although they don't use it).
  - a. atDNA covers **all** ancestors back 5+ generations.
  - b. Matches are your ancestors' descendants who test.
  - c. Some ancestors fall off our genetic genealogy tree
  - d. See the ISOGG.org for cousin statistics—when cousins start to be missed ([https://isogg.org/wiki/Cousin\\_statistics](https://isogg.org/wiki/Cousin_statistics))
- 4 Match List
  - a. Click on a match
    - i. Gives predicted relationship, but confirm this.
      1. Look at how much DNA is shared (click on "i")
      2. Compare centiMorgans (cM) shared on
        - a. a table with possible relationships (in handout)
        - b. DNA Painter Tool: <https://dnapainter.com/tools/sharedcmv4>
      3. The more DNA you share, the more closely you're related—to a point.
      4. For each match, there are three black buttons
        - a. Pedigree and Surnames (match's direct ancestors): Look for common ancestors and surnames
        - b. Shared Matches (SMs): These are matches that match both you and your match. SMs are very important. They should share a common ancestor. Search their trees. Also, once you know who 1 SM is, you can use them to fish out related people.

- c. Maps and Locations: Note that only birth places are shown. Search for common locations either in the list or on the map
- 5 Shared Ancestors Hint (SAH)
- a. Designated by green leaf
  - b. Where to find them:
    - i. On main DNA page
    - ii. Next to an individual match in your match list
    - iii. You can also search for only matches with SAHs by clicking on the Hints button with the green leaf at the top of your match list.
  - c. Provided when
    - i. You share DNA with a match
    - ii. You and your match have the same ancestor(s) in your tree
  - d. Click on match with green leaf to get
    - i. Tree with shared ancestor(s) at top
    - ii. Left: a line down to you
    - iii. Right: a line down to your match
    - iv. *You should confirm SAHs*
- 6 Mother/Father Filter
- a. Automatically shows up when you test a parent
  - b. Can filter by clicking on the button for the parent
- 7 DNA Circles
- a. On DNA home page
  - b. Your DNA matches + common ancestor
  - c. Based on 1 ancestor
  - d. Minimum of 3 people
  - e. But must be 2C or more distant cousin to count as 1 person/node
  - f. "Genetic Network" – not triangulation
  - g. Requirement: Active subscriber
  - h. Limitation: only goes back 7 generations
  - i. To get more DNA Circles, have more 2Cs or more distant cousins test
- 8 New Ancestor Discovery (NAD)
- a. Based on another person's DNA Circle
  - b. You have a "strong" DNA match to members
  - c. Thus, you *might* be related to them

- d. Reasons for NADs: You're
    - i. **a direct descendant** of "The Ancestor"
    - ii. but they're not in your tree
    - iii. **not a direct descendant** of "The Ancestor"
    - iv. Two reasons for this—check Ancestry web site for explanation
  - e. Bottom line: sometimes you need to add to your tree to convert these to DNA Circles
- 9 Ethnicity Estimates
- a. Compared to that company's *reference panel*, that is, groups of people with known ancestry.
  - b. Reported in ranges
  - c. Look at the maps!
  - d. Certain ethnicities will get fewer matches, e.g., Scandinavian, Eastern Europeans, South Americans, than at FamilyTreeDNA (FTDNA)
  - e. But you can always transfer your Ancestry results to FTDNA to look for more
- 10 Migrations/Regions (formerly Genetic Communities)
- a. More recent groups based on migration patterns or
  - b. Regions that are more specific than ethnicity estimates
  - c. They can be used to filter matches.
- 11 Organizing Your Matches
- a. DNA Client from DNAGedcom.com (*I use this!*)
  - b. Google Chrome Extensions
    - i. AncestryDNA Helper
      - 1. Might only work on PCs (not Macs)
      - 2. Adds tools to your Ancestry screen
        - a. Better searching
    - ii. MedBetterData
      - 1. Allows adding hashtags and then sorting of matches
- 12 Conclusions:
- a. Ancestry has powerful tools to help
  - b. Determine who matches are
  - c. Answer genealogy questions
  - d. The tools require a subscription fee

## **RESOURCES**

- International Society of Genetic Genealogy  
<http://isogg.org>
- Glossary of Terms  
[http://isogg.org/wiki/Genetics Glossary](http://isogg.org/wiki/Genetics_Glossary)
- FaceBook Groups
  - DNA Do-Over
    - Administered my Thomas MacEntee & me  
<https://www.facebook.com/groups/dnadoover/>
  - DNA Tips and Techniques
    - <https://www.facebook.com/groups/geneticgenealogytipsandtechniques/>
  - DNA Detectives
    - <https://www.facebook.com/groups/DNADetectives/>
- Short videos on genetic genealogy  
<http://learn.genetics.utah.edu/content/basics/molgen/>
- Types of cousins explanation  
<https://en.wikipedia.org/wiki/Cousin>
- Books
  - My Book, “23 Best Tips for DNA Testing and Family History” (available on Amazon.com)
  - My Client’s memoir about her surprising DNA discovery, Lucinda Davis, “The Magician’s Daughter” (available on Amazon.com)