

DNA Case Study Handout – Don Worth

Three types of DNA tests available:

Y-DNA: About \$169 for 37 markers (discounted if ordered through a DNA project)
Follows father's father's father's ... line
Only males can be tested (usually should have the paternal surname)
Tests available from: FamilyTreeDNA.com (Haplogroup & Y STRs)

mtDNA: \$199 for full sequence
Follows mother's mother's mother's ... line
Males & females may be tested
Tests available from: FamilyTreeDNA.com (full sequence)

atDNA: About \$99 (sometimes on sale around holidays)
Autosomal DNA matches are from all lines
Males & females may be tested
Tests available from: FamilyTreeDNA.com Family Finder (200,000 tests in database)
Ancestry.com (2,000,000 tests in database)
23andMe.com (over 1,000,000 tests in database)

Q: Which company should I pick for my Autosomal DNA test?

A: I suggest all three! Start with Ancestry.com (\$99) and then transfer (copy raw data) to FamilyTreeDNA.com (\$39) & GEDmatch.com then test again at 23andMe.com (\$199).

Things to Keep In Mind with Autosomal DNA

1. Your match may not be matching you in the way you think it is:
 - Watch out for endogamy (intermarriage) & multiple relationships
 - Rule out alternate possibilities for the match
 - Use triangulation with multiple matches to the same DNA segment
 - Look for more than one triangulated match to confirm a family or location
2. Your or your match's tree may be incorrect:
 - Always validate your match's research
3. Beware of distant matches (very small matching DNA segments):
 - They may be false matches
4. Your relationship may be closer or more distant than the testing company predicted
5. Look for matches to suspected female lines to confirm ancestral couples
6. Always follow up with traditional genealogical research to confirm your DNA interpretation

Third Party Tools on the Web

GEDMATCH	A volunteer-run clearinghouse database where you can compare DNA test results between all three of the companies (www.gedmatch.com)
DNAGEDCOM	A volunteer-run set of tools for downloading, viewing and analyzing match results. Includes the ADSA tool. (www.dnagedcom.com)

My Suggestions for Learning More About Genetic Genealogy

Ventura County Genealogical Society's DNA Links page. A great (and current!) list of explanations of all things DNA including introductory material maintained by Teri Reynolds of VCGS:

<http://www.venturacogensoc.org/cpage.php?pt=343>

Kelly Wheaton's Beginner's Guide to Genetic Genealogy:

<https://sites.google.com/site/wheatonsurname/beginners-guide-to-genetic-genealogy>

The "Interpreting Your Results" section of the ADSA manual for a better understanding of segments and Triangulation:

<http://www.dnagedcom.com/adsa/adsamannual.html.php#interpret>

The International Society of Genetic Genealogists (ISOGG) – it's free to join and their WIKI is an excellent reference:

<http://isogg.org>

Join the DNA Newbie FaceBook page for mentoring and help getting started:

<https://www.facebook.com/groups/dnanewbie/>

or the Yahoo DNA Newbie group (you must join ISOGG first but that's free):

<https://groups.yahoo.com/neo/groups/DNA-NEWBIE>

There are more FaceBook groups where you can ask questions too:

<https://www.facebook.com/groups/isogg/>

<https://www.facebook.com/groups/gedmatchuser/>

<https://www.facebook.com/groups/DNAGedcomUserGroup/>

<https://www.facebook.com/groups/DNATools/>

<https://www.facebook.com/groups/03guillaume/> (Autosomal DNA)

DNA books become obsolete very quickly. These are the best, most recent ones:

Genetic Genealogy: The Basics and Beyond; Emily Aulicino; 2013

The Family Tree Guide to DNA Testing and Genetic Genealogy; Blaine Bettinger; Oct 2016

Feel free to email me anytime with questions. I'm always happy to help:

Don Worth <worth@ucla.edu>