

Handout from Paul Smith for “DNA for Genealogy” presentation 1-20-14

Terms

autosomal DNA (auDNA or atDNA) – the first 22 pairs of chromosomes. Doesn't include mtDNA, X or Y DNA.

autosomal testing – most popular genealogical test. Costs roughly \$100 with the Big Three. Tests over 500,000 SNPs.

Big Three – 23andMe, AncestryDNA, and FamilyTree DNA (FTDNA)

Big Four – 23andMe, AncestryDNA, FamilyTree DNA (FTDNA), and Geno 2.0 (Nat Geo)

bp/mbp (base pair/mega or million base pairs) – Human DNA is composed of 3 billion base pairs. X-DNA has over 153 million base pairs; Y-DNA has between 60 and 65 million base pairs.

Chimera effect – you are your own twin.

cM (cent-Morgan) – unit of measure. Roughly 1 million base pairs in length. Often given as two numbers – longest segment and total cM.

endogamy – marrying within a group, typically either a religious, ethnic, cultural, or tribal group.

Haplogroups – a group of people who share a common ancestor on either the patrilineal (father's father's father's ... - Y-DNA haplogroup) or matrilineal (mother's mother's mother's ... - mtDNA haplogroup) line.

ISOGG – International Society of Genetic Genealogists (free to join)

mtDNA (mitochondrial DNA) - passed from mother to children.

NPE – Non Paternity Event . Not the Parent Expected.

SNP (pronounced 'snip') - Single Nucleotide Polymorphism; one of several markers used in DNA testing. SNPs can refer to autosomal or Y-DNA tests.

STR (pronounced 'stir') – Single Tandem Repeat; another marker used in DNA testing; in most cases, STR references are Y-STRs. standard Y-DNA tests used for genealogy looks at Y-STRs.

X and Y DNA – sex chromosomes. XX is female and XY is male.

Facebook Groups:

Ancestry GEDmatch FTDNA 23andMe Genealogy and DNA

<https://www.facebook.com/groups/AncestryGedmatchFtdna23andmeGenealogyandDna/?ref=browser>

GEDmatch GENEALOGY and Ancestry Group

<https://www.facebook.com/groups/770288949652854/?ref=browser>

23andMe Newbies <https://www.facebook.com/groups/161126313940147/?ref=browser>

ISOGG * <https://www.facebook.com/groups/isogg/?ref=browser>

http://isogg.org/wiki/Autosomal_DNA_statistics & http://www.isogg.org/wiki/List_of_DNA_testing_companies

J1 Y-DNA Project (1 of 2 J1 groups) <https://www.facebook.com/groups/JM267/?ref=browser>

Epigenetics Research + YDNA & mtDNA Haplogroups

<https://www.facebook.com/groups/160665757375899/?ref=browser>

Autosomal DNA <https://www.facebook.com/groups/03guillaume/?ref=browser>

DNA Newbie <https://www.facebook.com/groups/dnanewbie/?ref=browser>

Tracing the Tribe - Jewish Genealogy on Facebook

<https://www.facebook.com/groups/tracingthetribel/?ref=browser>

GEDmatch.com User Group (user friendly) <https://www.facebook.com/groups/405531739562579/?ref=browser>

Gedmatch.com Discussion Group <https://www.facebook.com/groups/540702705987151/?ref=browser>

NATIVE AMERICAN Ancestry Explorer: DNA, Genetics, Genealogy & Anthropology

<https://www.facebook.com/groups/1514942452068475/?ref=browser>

The Mutants <https://www.facebook.com/groups/544588462262576/?ref=browser>

Full Genomes Y sequencing <https://www.facebook.com/groups/fullgenomesY/?ref=browser>

Genome Mate User Group <https://www.facebook.com/groups/1487955884768702/?ref=browser>

The Genetic Genealogy Consultant

<https://www.facebook.com/groups/geneticgenealogyconsultant/?ref=browser>

German Language Area DNA Research Project

<https://www.facebook.com/groups/germanydna/?ref=browser>

J1 Y-DNA (the other major J1 Facebook group)

<https://www.facebook.com/groups/HaplogroupJ1/?ref=browser>

Y-DNA Project Administrators <https://www.facebook.com/groups/43927947190/?ref=browser>

RootsWeb genealogists (Ancestry's Facebook group is now closed to new members so this is a good alternative) <https://www.facebook.com/groups/17834741205/?ref=browser>

GEDmatch-DNA cousins ...D <https://www.facebook.com/groups/579687212064134/>

Random Acts of Genealogical Kindness (RAOGK) (one of several RAOGK groups)

<https://www.facebook.com/groups/33868082803/?ref=browser>

Haplogroups Y-Dna & MtDna <https://www.facebook.com/groups/132294523499645/?ref=browser>

Surname distribution maps (includes DNA as a topic)

<https://www.facebook.com/groups/467543026597487/?ref=browser>

Acadian Genealogy <https://www.facebook.com/groups/2224685391/?ref=browser>

Neanderthal Ancestry <https://www.facebook.com/groups/515925948487096/?ref=browser>

Polish Genealogy <https://www.facebook.com/groups/50089808265/?ref=browser>

Forensic Genealogy <https://www.facebook.com/groups/25598261937/?ref=browser>

Random Acts of Genealogical Kindness - RAOGK International

<https://www.facebook.com/groups/raogkinternational/?ref=browser>

LegalGenealogist Not Soup Yet (part 2) <http://www.legalgenealogist.com/blog/2014/05/18/admixture-not-soup-yet/> **AND (Part 1)** <http://www.legalgenealogist.com/blog/2013/10/27/those-pesky-percentages/>

mtDNA <http://www.legalgenealogist.com/blog/2012/02/12/oh-mama-a-use-for-mtdna/>

Earlier AncestryDNA <http://www.legalgenealogist.com/blog/2012/05/13/up-close-ancestrydna/>

Y-DNA <http://www.legalgenealogist.com/blog/2013/01/27/the-changing-names-of-ydna/>

Geno 2.0 <http://www.legalgenealogist.com/blog/2014/07/06/8287/>

Legal Genealogist <http://www.legalgenealogist.com/blog/2013/06/23/that-pesky-ny-law>

<http://legalgenealogist.com/blog/2012/12/23/ny-and-md-limits-on-23andme/>

(23andMe's NY FAQs) <https://customercare.23andme.com/hc/en-us/articles/202907950-Availability-in-the-state-of-New-York>

Forbes article http://www.forbes.com/2008/04/17/genes-regulation-testing-biz-cx_mh_bl_0418genes.html

AncestryDNA – How to Collect Your Saliva http://help.ancestry.com/app/answers/detail/a_id/5473

23andMe Providing your saliva <https://customercare.23andme.com/hc/en-us/articles/202904530-Providing-your-saliva-sample>

HHS Family History <http://www.hhs.gov/familyhistory>

Kelly Wheaton's Beginner's Guide to Genetic Genealogy

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

Autosomal Adventures <http://www.autosomaladventures.blogspot.com/2013/04/haplogroups-autosomal-dna-and-dna.html> **AND** <http://www.autosomaladventures.blogspot.com/>

Personal Genome Project <https://my.pgp-hms.org/signup> **AND** <http://www.personalgenomes.org/>

Harappa Ancestry Project <http://www.harappadna.org/2012/05/harappaworld-admixture/>

<http://www.harappadna.org/2012/05/diy-harappaworld/>

YSEQ.net (Y-DNA STR and SNP testing only) <http://www.yseq.net/>

BritainsDNA <http://www.britainsdna.com/products/complete>

FTDNA J-1 Page <https://www.familytreedna.com/public/J-M267/default.aspx?section=ysnp>

<https://www.familytreedna.com/public/J-M267/>

Ancestry.com Interview <http://kcpw.org/blog/the-bottom-line/2014-07-08/tim-sullivan-ancestry-com-president-ceo/>

23andMe African DNA test <https://www.23andme.com/en-ca/cohort/africanancestry/>

23andMe IBD Study (new customers only and not full access) <https://www.23andme.com/ibd/>

23andMe No Call/Not genotyped FAQs <https://customercare.23andme.com/hc/en-us/articles/202907630-What-does-No-call-Not-genotyped-mean-in-Browse-Raw-Data->

CeCe Moore's v4 chip 23andMe comparison yourgeneticgenealogist.com/2013/12/23andme-releases-sample-of-their-new-v4.html

Other uses for DNA results <http://www.thegeneticgenealogist.com/2013/09/22/what-else-can-i-do-with-my-dna-test-results/>

James Lick mtDNA Haplogroup tool <http://dna.jameslick.com/mthap/>

My McGee Y-111 Utility <http://www.mymcgee.com/tools/yutility111.html>

Genetic Genealogy Standards (for professional genealogists) <http://www.geneticgenealogystandards.com/>

Genealogy groups on Facebook (far from a complete list, but over 4,000)
<http://socialmediagenealogy.com/genealogy-on-facebook-list/> (also has Canadian version on this link)

<https://moonswings.files.wordpress.com/2014/10/facebook-list-oct-2014.pdf> (PDF location; 120 pages long; DNA bottom of page 91 – top of page 93)

Genetic Genealogy Ireland link <http://ggi2013.blogspot.com/2014/12/the-ggi2014-lectures-on-youtube.html>

Eupedia.com Article <http://www.eupedia.com/forum/threads/28882-Ordering-a-DNA-test-in-France-is-a-crime-punishable-by-heavy-fines-and-jail-time>

More on France <http://www.avoicemen.com/mens-rights/france-upholds-the-ban-on-paternity-tests/>

Doctors could use your Ancestral DNA to improve your care <http://www.ozy.com/fast-forward/doctors-could-soon-use-your-ancestral-dna-to-improve-your-care/33123>

Setting up Genome Mate <http://stonefamilytree.wordpress.com/2014/08/07/setting-up-genome-mate/>

Chromosome Matching and GEDmatch <http://stonefamilytree.wordpress.com/2014/07/29/chromosome-mapping-and-gedmatch-an-overview-of-what-they-are-and-what-the-benefits-are/>

Native American <http://dna-explained.com/2012/12/18/proving-native-american-ancestry-using-dna/native-d9s19-order/>

<http://themindunleashed.org/2014/08/dna-analysis-shows-native-american-genealogy-one-unique-world.html>

Shortage <https://www.easydna.co.uk/knowledge-base/dna-testing-crisis-sperm-market/>

MinION USB Stick DNA analyzer <http://www.extremetech.com/extreme/190409-minion-usb-stick-gene-sequencer-finally-comes-to-market>

Gizmodo article <http://gizmodo.com/bacteria-have-been-hacked-to-work-like-tape-recorders-1658728454>

FTDNA Y-transfer from another company <https://www.familytreedna.com/landing/ydna-transfer.aspx>

TribeCode: <https://www.tribecode.com/>

DNA Tribes: (relaunching after a death); also has SNP analysis option <http://dnatribes.com/>

DNA Consultants <http://dnaconsultants.com/>

Connect My DNA <http://www.connectmydna.com/>

DNA Analysis article: <http://www.motherjones.com/politics/2014/11/rapid-dna-profiles-database-fbi-police>

DNA Related Bloggers

Mine <http://upsdownsfamilyhistory.com/>

Judy G. Russell, the Legal Genealogist <http://legalgenealogist.com/> DNA section:
<http://legalgenealogist.com/blog/category/dna/>

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

CeCe Moore, Your Genetic Genealogist <http://www.yourgeneticgenealogist.com/>

Blaine Bettinger <http://www.thegeneticgenealogist.com/>

Roberta Estes <http://dna-explained.com/>

AncestryDNA DNA Circles <http://dna-explained.com/2014/11/19/ancestrys-better-mousetrap-dna-circles/>

Kitty Cooper's Blog <http://blog.kittycooper.com/dna-testing/>

<http://blog.kittycooper.com/2014/11/dna-matching-changes-at-ancestry-com/>

DNA Genealogy Blog <http://dnagenealogy.tumblr.com/>

Annette's Blog <http://annetekapple.blogspot.com/>

Debbie Cruwys Blog, Cruwys news <http://cruwys.blogspot.co.uk/>

Stone Family Tree Blog (DNA tagged link) <http://stonefamilytree.wordpress.com/tag/dna/>