# VGA's 7th Birthday Party A mtDNA and YDNA check-up

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Autosomal DNA (AncestryDNA, 23andMe, MyHeritage, LivingDNA, Family Finder test at FamilyTreeDNA)

Reminders about autosomal DNA (atDNA, DNA):

- Anyone can do a test
- Recombines (is mixed between parents) every generation
- Best for researching most recent 6 generations (3x great grandparents and closer)

#### YDNA overview

- Traces the father's father's father's line back in time.
- Only people with a Y-chromosome can test (biological males).
- Does not recombine.
- Mutates every few generations, which can provide relationship information.
- Provides information about distant ancestry through YDNA haplogroups.
- Confirms father-son relationships
- Can solve a mystery involving a male line.

What YDNA test should I order at FamilyTreeDNA?

- Y37: Definitely (typically \$99 on sale)
- Y111: Consider if you have a common surname
- BigY 700 (can be \$399 on sale)
  - To know as much as possible
  - Have close matches
  - Contribute to science
- Can upgrade with the original sample if it is viable

### Mitochondrial DNA (mtDNA) overview

- Traces the mother's mother's mother's line back in time.
- Anyone can test.
- Whole genome test

- Does not recombine.
- Mutations create patterns providing information about relationships. Not as specific as YDNA.
- Provides information on distant ancestry through mtDNA haplogroups.
- Can answer certain research questions.

FamilyTreeDNA offers a full sequence mitochondrial DNA test for genealogy purposes. Tests can be as low as \$129 on sale.

## Ways to track YDNA and mtDNA for your family

- On paper on a pedigree chart or list
- In your genealogy software
- At DNA Painter in the Ancestral Trees
- At Ancestry using an image or tag.

Finding YDNA and mtDNA target testers: track descendants of ancestors!

- In your genealogy software
- On Ancestry. ThruLines<sup>®</sup> is one option.
- At MyHeritage, try the Theories of Family Relativity  $^{\text{TM}}$
- FamilySearch Family Tree>View Tree>Descendancy
- WikiTree Descendants Tab

### Your YDNA and mtDNA check-up

- 1. Use the results of your check-up to create a mtDNA and YDNA testing plan.
- 2. Buy YDNA and mtDNA tests when they are on sale.
- 3. Reach out to potential testers.
- 4. Track your efforts by recording YDNA and mtDNA haplogroups for your ancestors.

# Remember you can research any family line with YDNA and mtDNA when you have the right cousin take a DNA test!

#### Resource:

Roberta Estes at <u>DNAeXplained</u>. Check out her books on using FamilyTreeDNA and Native American DNA.