



Genetic Genealogy

“Unlocking the Power of DNA Research”



3 Basic Types of Genetic DNA:

- Autosomal (Parent's Genetics)
- Y-DNA (Male Ancestry)
- MtDNA (Female Ancestry)



DNA Companies:

Family Tree DNA

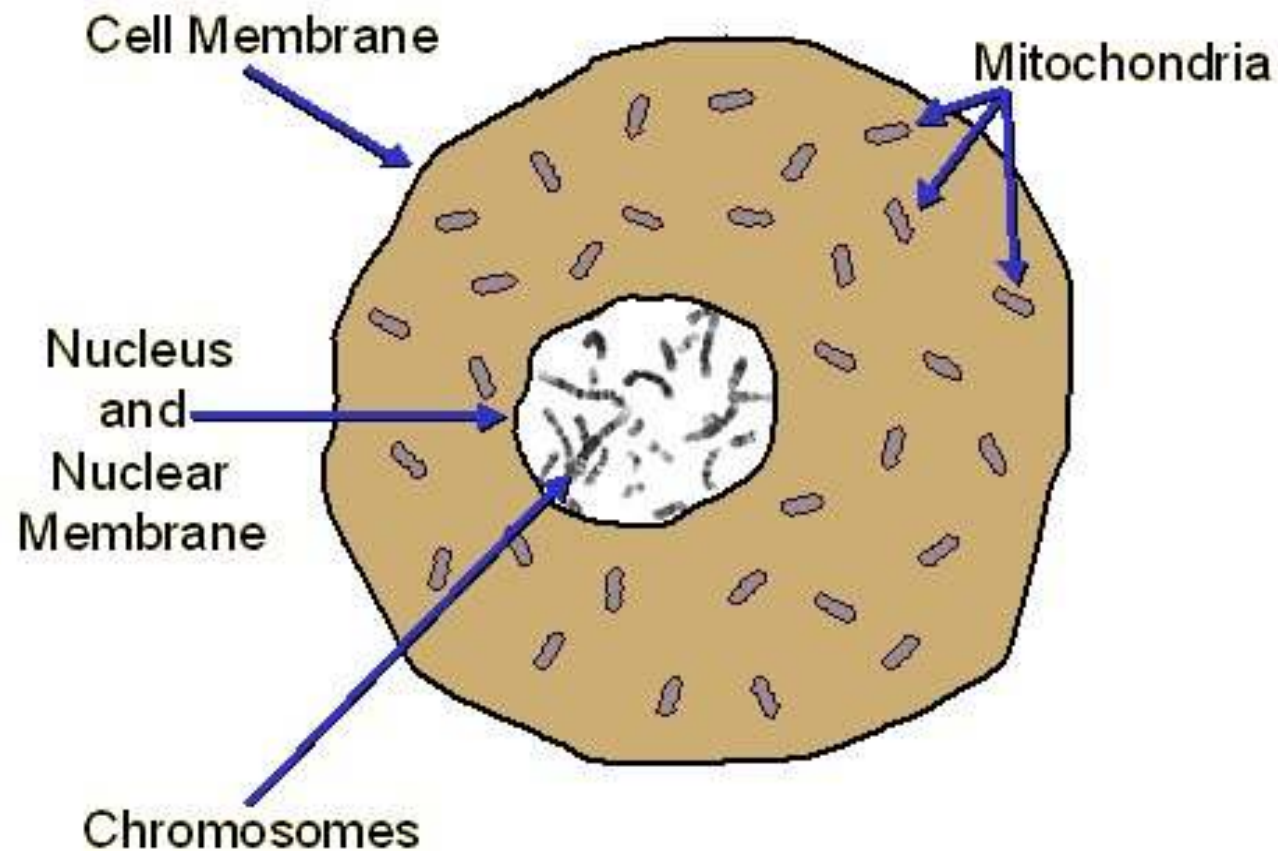
Ancestry DNA

23 and Me

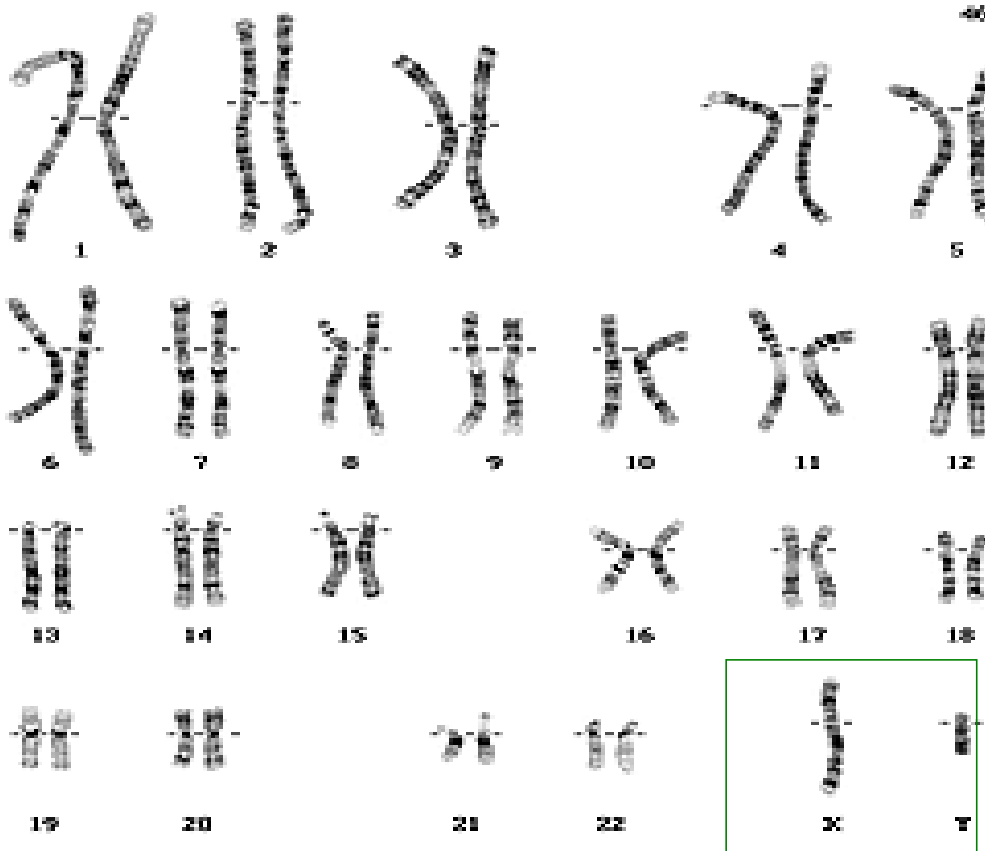
Ancestry by DNA

.....

DNA: What Does It Mean?



Your genes - 46 chromosomes - 23 from each parent



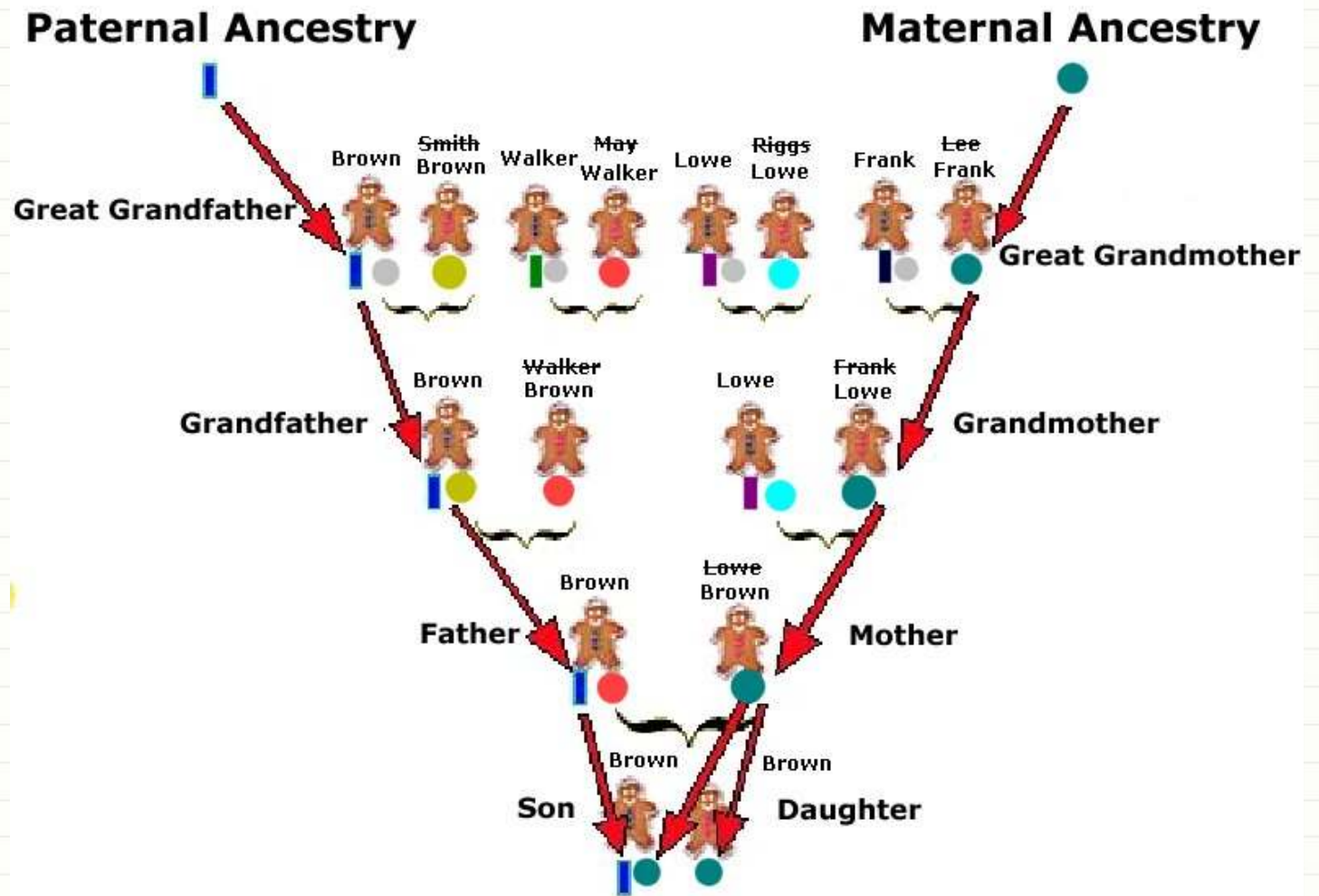
22 pairs
Autossomes

1 pair sex
chromosomes

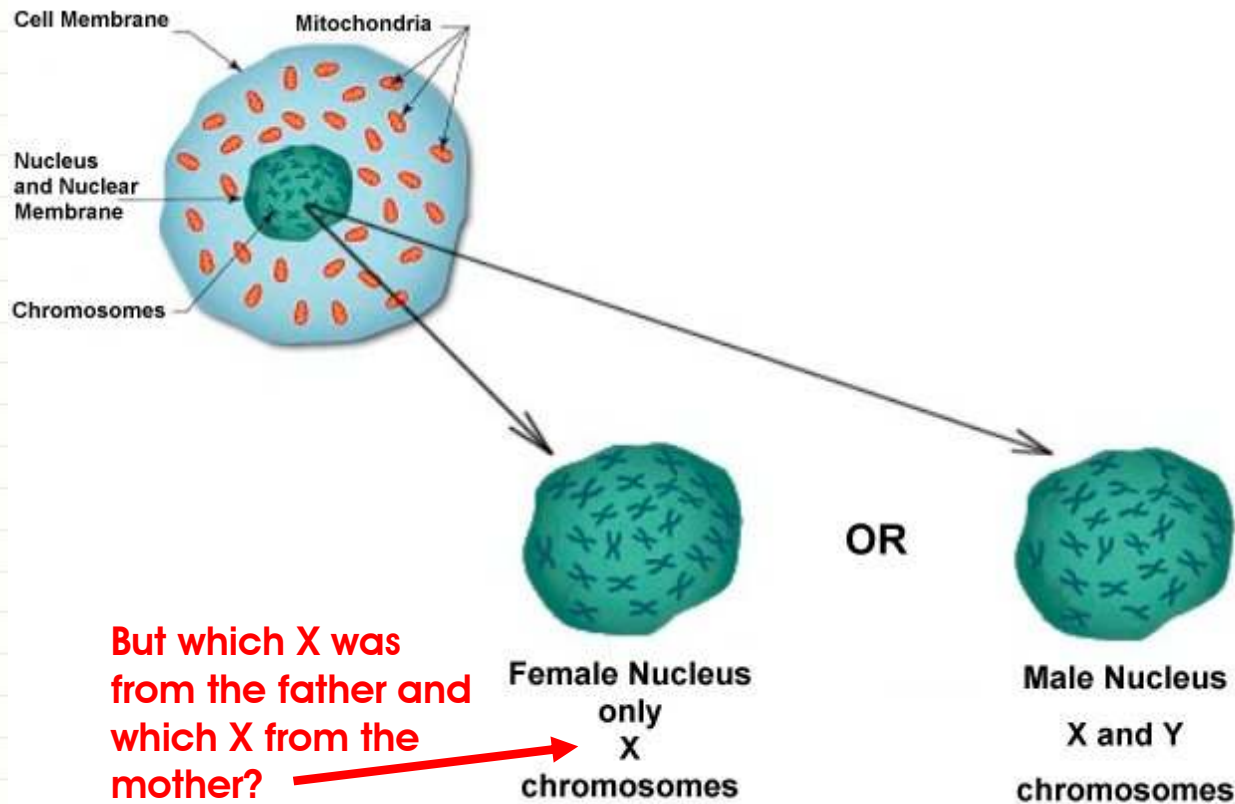


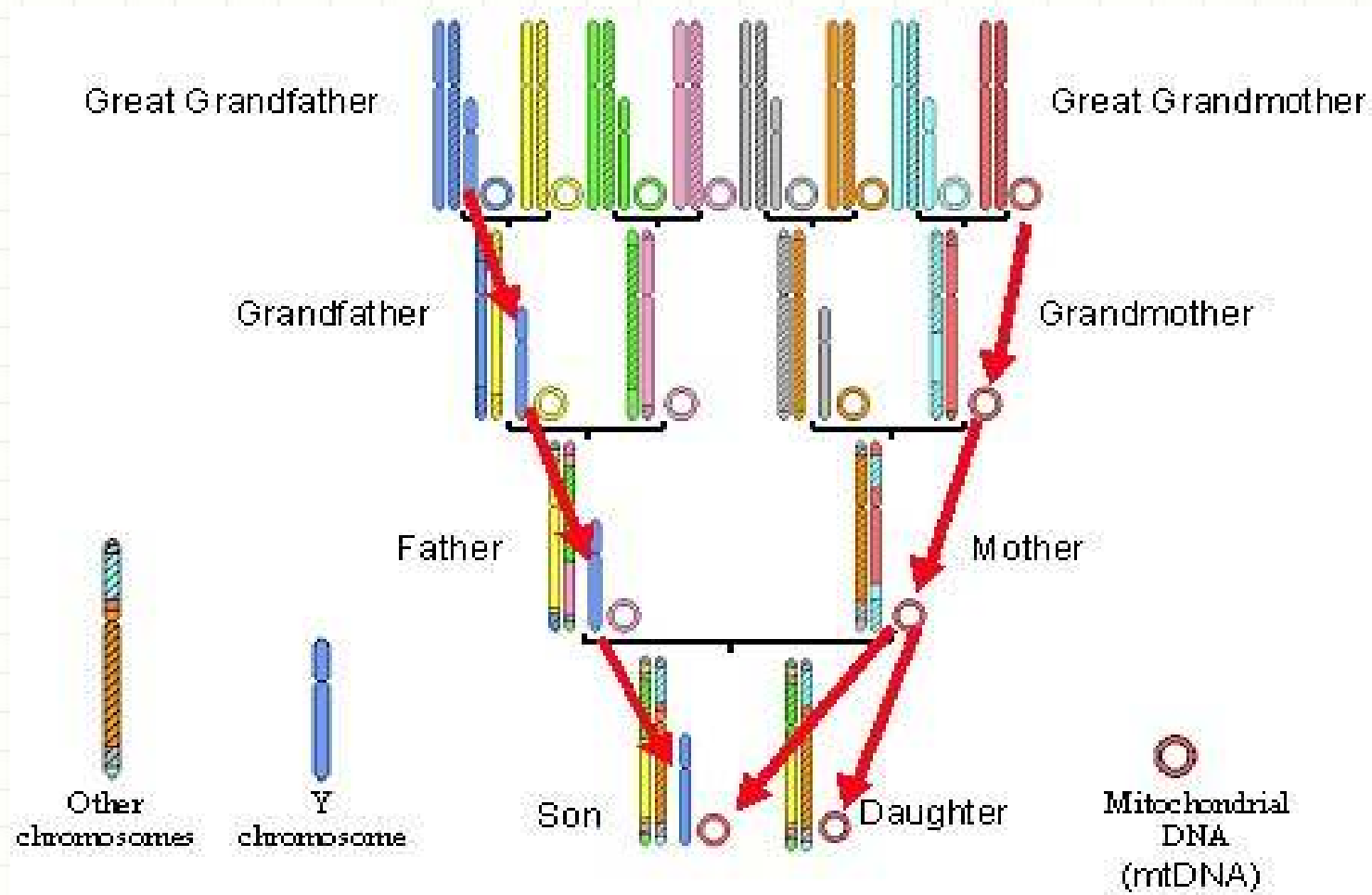
3 Types of Genetic DNA:

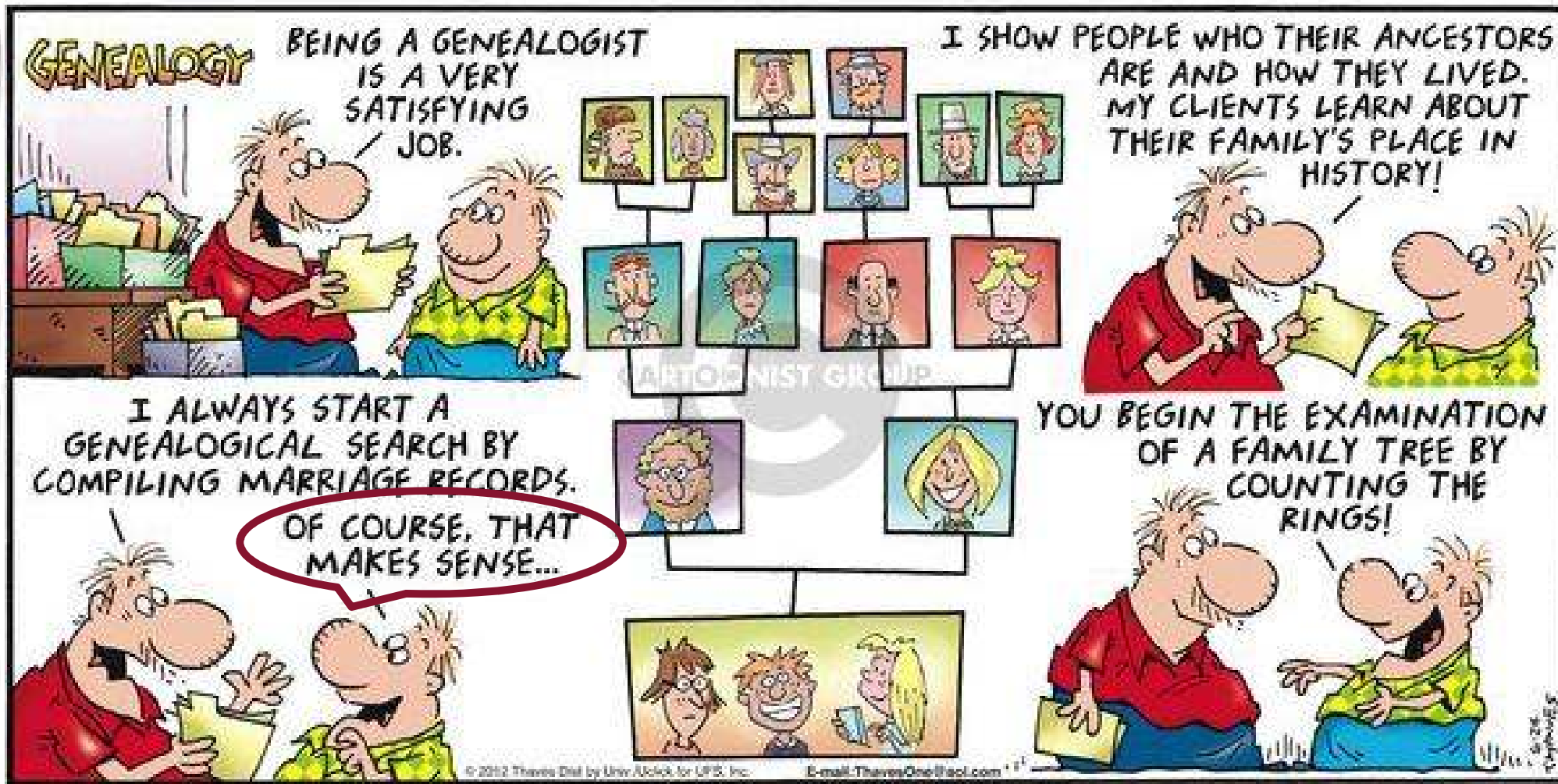
- Autosomal
- Y-DNA
- M_tDNA



Remember High School Biology?









My Testing Desktop With Family Tree DNA

Family Tree



Family Finder Results Completed: 2/22/2013



[Matrix](#) | [Advanced Matches](#) | [Download Raw Data](#) | [Learn More](#)

mtDNA Results Completed: 1/6/2014



My Family Finder Matches

Chromosome Browser

In Common With

Not In Common With

[Reset Filter](#)

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Go

All (4054)

Paternal (1239)

Maternal (273)

Both (2)

[Calculating Family Matching](#)

	Name	Match Date	Relationship Range	Shared Centimorgans	Longest Block	Ancestral Surnames	
☐	 Mr. George Fred Sorrells    	11/29/2016	Parent/Child	3,384	267	Alexander / Alexander/ Sr / Alexander/ Jr / Allen / Aymes / Blalock /	
☐	 Timothy Sorrells    	12/14/2016	Full Siblings, Half Siblings, Grandparent/ Grandchild	2,449	182	(Gregory?) / Alexander / Alexander/ Sr / Alexander/ Jr / Allen /	
☐	 Mr. Cecil Edward Ingle    	03/17/2017	1st Cousin, Uncle/ Nephew	774	117	Barker / Browder / Berryman / Clauss / Colclough / Creson / Dickson / Foote /	
☐	 Carrie Lynn Moore Giammusso    	02/02/2016	2nd Cousin - 3rd Cousin	133	17		
☐	 George Tipton    	02/04/2014	2nd Cousin - 4th Cousin	109	29	Dent (Franklin, VA) / Wright (North Carolyn & TN) / Reed (Cades Cove) /	

Chromosome Browser



Compare List

5+ cM

Remove

	George Fred Sorrells Shared Segments: 22	
	Cecil Edward Ingle Shared Segments: 28	
	Timothy Sorrells Shared Segments: 49	

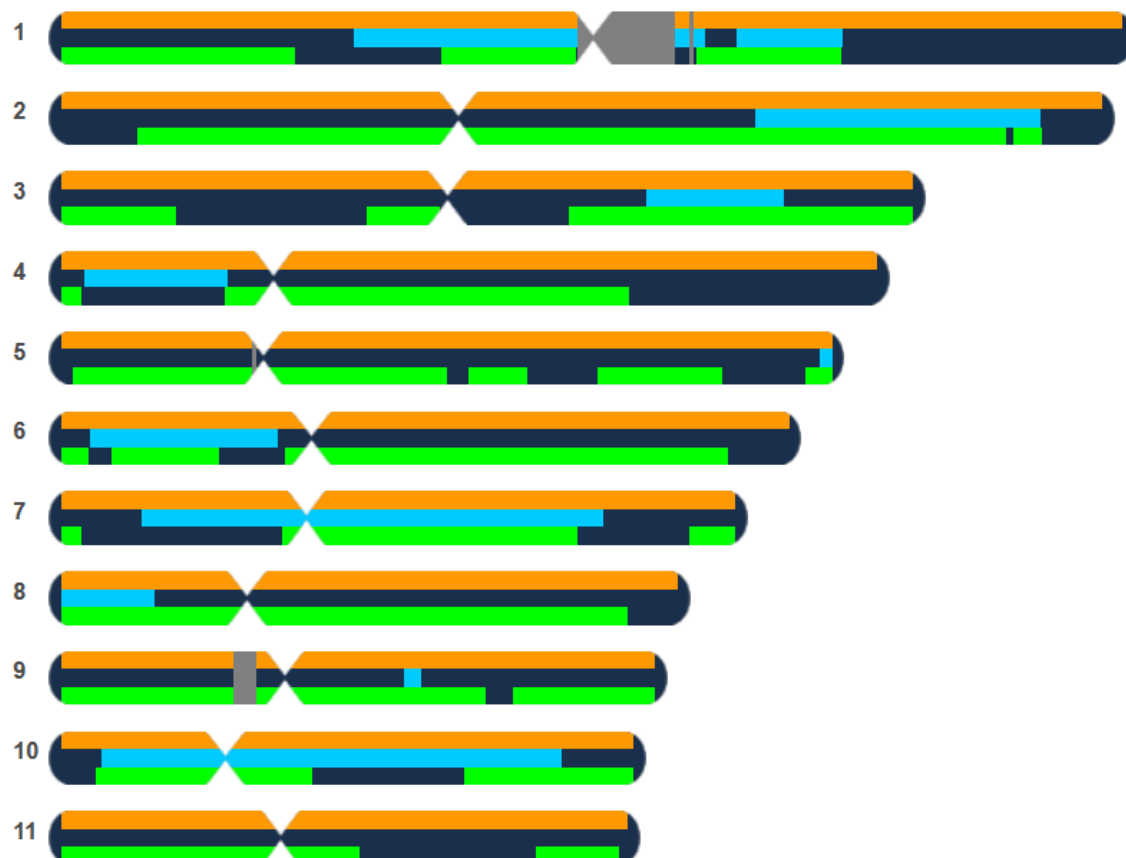
Reset Defaults

Clear Compare List

Filter Matches by...

1 - 10 of 4045

	Aarsheim, Will	☐
	Abbott, Donald	☐
	Abney, Gayle	☐



Y-DNA Matches

111 MARKERS - 7 - MATCHES

Genetic Distance ↑	Name	Earliest Known Ancestor	Y-DNA Haplogroup	Terminal SNP	Mat
3	Mr. Sterling Norman Sorrell    Y-DNA111 FF	Edward Sorrell, Sr. Wake Co., NC b Abt 1730	T-Y6409	Y6409	12/2
4	Mr. Randall Ray Powers     Y-DNA111 FF	William Henry Powers, unknown abt 1820-1850	T-Y6409	Y6409	8/20
6	Mr. Thomas Michael Walker    Y-DNA111	Daniel Anderson Walker, b. 1814	T-M70	M70	9/13
6	Mr. Van Anthony Mathis     Y-DNA111	James Mathis (1814-1879) ,Forsyth Co, GA	T-Z709	Z709	12/2
6	Jack S. Freeman    Y-DNA111 FF	EDWARD D. FREEMAN b. 1812, Anderson Co, SC	T-Y6409	Y6409	12/2
8	David Russell Freeman    Y-DNA111 FF	Martin Fralix FREEMAN, b. 7 Oct 1818, Abbeville SC	T-Y14426	Y14426	1/7/2
8	Carl Edward Freeman    Y-DNA111 FF	Martin Fralix FREEMAN, b. 7 Oct 1818, Abbeville SC	T-Y6409	Y6409	12/2



Y-DNA Markers are sold in the following multiples:

	DYS 393	DYS 390	DYS 19	DYS 391	DYS 385a	DYS 385b	DYS 426	DYS 388	DYS 439	DYS 389I	DYS 392	DYS 389II
AI-001	13	22	14	10	13	14	11	14	11	12	11	28
AI-002	13	22	14	10	13	14	11	14	11	12	11	28
AI-003	13	22	14	10	13	14	11	14	11	12	11	28
AI-004	13	22	14	10	13	14	11	14	11	12	11	28
AI-005	13	22	14	10	13	14	11	14	11	12	11	28
AI-006	13	22	14	10	13	14	11	14	11	12	11	28
AI-007	13	22	14	10	13	13	11	14	11	12	11	28
AI-008	13	22	14	10	13	14	11	14	11	12	11	28
AI-009	13	22	14	10	13	14	11	14	11	12	11	28
AI-010	13	22	14	10	13	14	11	14	11	12	11	28
AI-018	13	23	14	10	13	14	11	14	11	12	11	28
AI-019	13	23	14	10	13	14	11	14	11	12	11	28
AI-020	13	23	14	10	13	14	11	14	11	12	11	28
AI-021	13	23	14	10	13	14	11	14	11	12	11	28
AI-022	13	23	14	10	13	14	11	14	12	12	11	28
AI-023	13	23	14	10	13	14	11	14	11	12	11	28
AI-024	13	23	14	11	11	14	11	14	11	12	11	28
AI-011	13	23	14	11	11	14	11	14	11	12	11	28
AI-012	13	23	14	11	11	14	11	14	11	12	11	28
AI-015	13	22	14	10	13	14	12	14	11	12	11	28
AI-013	13	22	14	10	13	14	12	14	11	12	11	28
AI-014	13	24	14	12	11	14	12	14	11	12	12	28

Yes! (Line 3)

Yes! (Line 2)

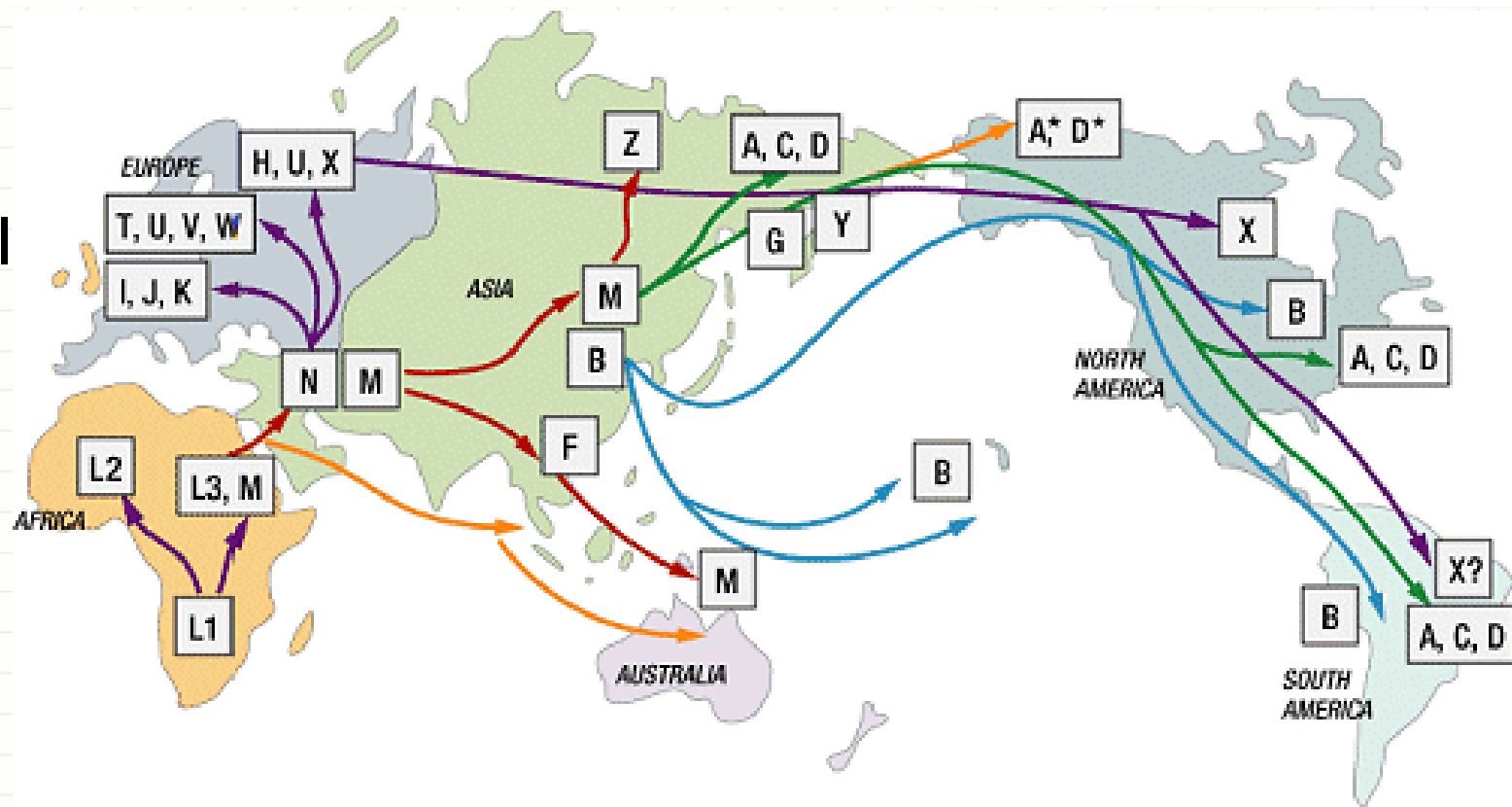
Yes! (Line 1)

Yes! (Line 4)

Well.... You know...We are all related if we go back far enough



Mitochondrial Haplogroups



EXPANSION TIMES (years ago)

Africa	120,000 - 150,000
Out of Africa	55,000 - 75,000
Asia	40,000 - 70,000
Australia/PNG	40,000 - 60,000
Europe	35,000 - 50,000
Americas	15,000 - 35,000
Na-Dene/Esk/Aleuts	8,000 - 10,000



Ethnic Makeup Percentages

Sherry Finchum

● European 98% ▾

● Central/South Asian 2% ▾

Show All

Family Tree DNA

African	0%	Middle Eastern	0%
South Central Africa	0%	Asia Minor	0%
East Central Africa	0%	East Middle East	0%
West Africa	0%	North Africa	0%
New World	0%	West Middle East	0%
North and Central America	0%	European	98%
South America	0%	British Isles	8%
Central/South Asian	2%	East Europe	5%
Central Asia	2%	Finland	0%
Oceania	0%	Scandinavia	26%
South Central Asia	0%	Southeast Europe	0%
East Asian	0%	Iberia	0%
Northeast Asia	0%	West and Central Europe	59%
Siberia	0%	Jewish Diaspora	0%
Southeast Asia	0%	Ashkenazi	0%
		Sephardic	0%



Ancestry.com DNA (Autosomal Only)



AncestryDNA Kit

Discover your ethnic mix and find distant relatives with a simple test. [Learn more](#) ▼



1



\$79.00 each

SAVE NOW. Add more kits to your order for only \$69/ea.

Genetic Ancestry



Thousands of years ago
Ethnicity Estimate

Asia 2%

⊕ Low Confidence Region

Europe 94%

● Ireland 32%

● Great Britain 23%

● Europe West 23%

● Scandinavia 14%

⊕ Low Confidence Region

West Asia 4%

⊕ Low Confidence Region

Genetic Ancestry ?

Thousands of years ago

Ethnicity Estimate



● 32% Ireland

● 23% Great Britain

● 45% Other regions

Hundreds of years ago

Genetic Communities™

NEW BETA



View your 3 Genetic Communities

What is a Genetic Community?

[VIEW YOUR GENETIC ANCESTRY](#)



Contemporary Ancestors



Hundreds of years ago

Genetic Communities™



● **Early Settlers of Tennessee & the Deep South**



Connection: Likely



● **Settlers of the Great Smoky Mountains**



Connection: Possible



● **Early Settlers of Western North Carolina & Southern Illinois**



Connection: Possible



DNA Matches



 394 Shared Ancestor Hints

 55 Starred matches

 1,683 4th cousins or closer

[VIEW ALL DNA MATCHES](#)

DNA Matches



AncestryDNA Results for Sherry Finchum

Sort by: Relationship | Date

< 1 of 856 >

Filters

 HINTS

 NEW

 STARRED

 GENETIC COMMUNITIES

 SEARCH MATCHES

2ND COUSIN



[Leslie Martin](#)

Possible range: 1st - 2nd cousins ?

Confidence: Extremely High 

Last logged in Jun 20, 2017

 74 people

[VIEW MATCH](#)



[TeresaSuffridge](#) 

Possible range: 2nd - 3rd cousins ?

Confidence: Extremely High 

Last logged in May 25, 2017

 17 people

[VIEW MATCH](#)



[LDykhous](#) 

Possible range: 2nd - 3rd cousins ?

 1,173 people  

[VIEW MATCH](#)



DNA Circles

DNA Circles **36**



Confidence: Strong

 **John Paine DNA Circle**

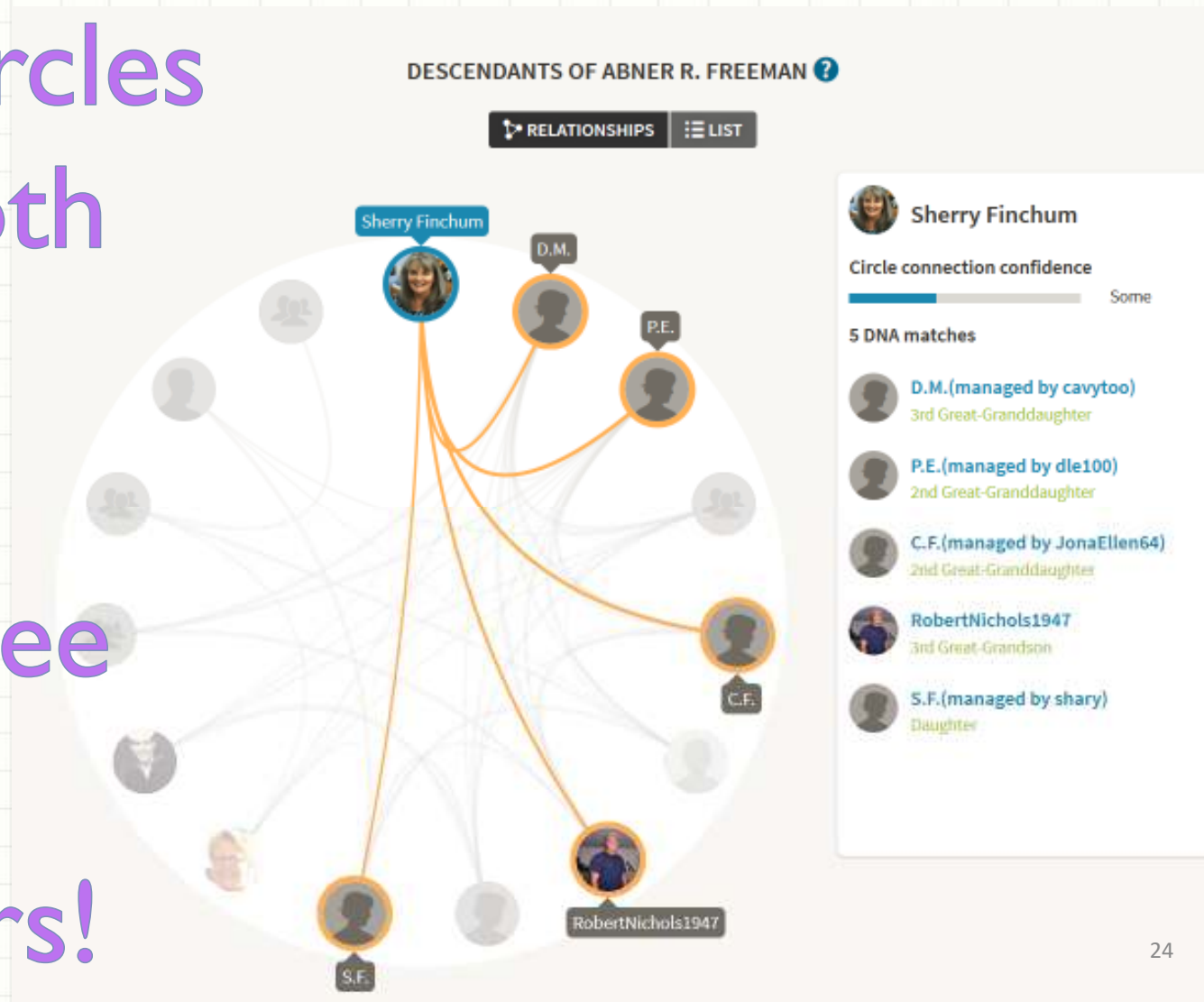
3rd Great-Grandfather

57 MEMBERS

VIEW ALL DNA CIRCLES



DNA Circles Share Both Genetic DNA & Family Tree Same Ancestors!





Compare relationship paths to Abner R. Freeman

Sherry Finchum and D.M. both have a direct ancestral line relationship to Abner R. Freeman in their respective family trees.

Abner R. Freeman
(from Sherry Finchum's family tree)



 **Pleasant "Henderson" Freeman**
2nd Great-Grandfather

 **Jessie Edna Freeman**
Great-Grandmother

 **Vida Lurline Redd**
Grandmother

 **George "Fred" Sorrells**
Father

 **Sherry Finchum**
Circle membership confidence:
Some


Abner R. Freeman
(from D.M.'s family tree)



 **Pleasant Henderson Freeman**
2nd Great-Grandfather

 **Harvie Carson Freeman**
Great-Grandfather

 **Offie C Freeman**
Grandfather

 **Mary Neil Freeman**
Mother

 **D.M.**
Circle membership confidence:
Strong

 DNA match

Another View Of DNA Circle Matches



DNA Testing Packages:

Family Finder

~~NOW \$89 USD~~

ORDER NOW

Now \$69.00

Y-DNA

FROM \$169 USD

ORDER NOW

mtDNA

NOW \$199 USD

ORDER NOW

Autosomal Transfers

Transfer your data from 23andMe© or AncestryDNA™ to find new matches in our database.

[Try it Free](#)



Stringent Guidelines for Privacy

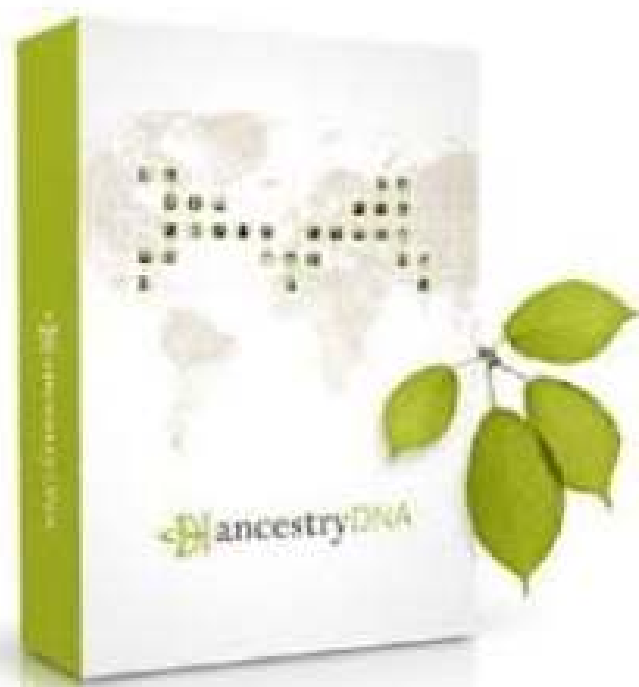
- **Double Safety net:**
 - **FTDNA** controls database and test scores
 - **University of Arizona** controls the **DNA** sample
- **Data is released for matching purposes only if Release Form is signed**
- **Individually computer generated locator ID and matching code for database search only accessible to customers**







ancestryDNA[®]



Warning: This is an example and not a valid code.





GEDmatch.com

**[GED
match]** Tools for **DNA and Genealogy Research**

GEDmatch provides DNA and genealogical analysis tools for amateur and professional researchers and genealogists. Most tools are free, but we do provide some premium tools for users who wish to help support us with contributions. You will need to upload DNA and / or genealogical (GEDCOM) data to make use of the tools here. Registration requires your name, email and a password of your choice. Click [HERE](#) to register.



Population	
African	0.07
Amerindian	0.61
ASI	-
Basal	2.26
Iran-Mesolithic	2.42
Neolithic	32.55
Oceanic	-
EHG	26.55
SEA	-
Siberian	0.63
WHG	34.91

Ethnic Analysis



“You don’t look anything like the long haired, skinny kid I married 25 years ago. I need a DNA sample to make sure it’s still you.”