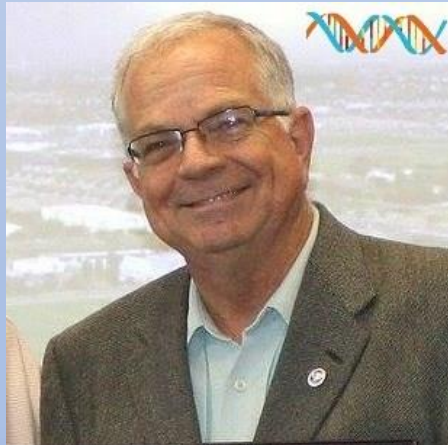


# DNA Testing Companies



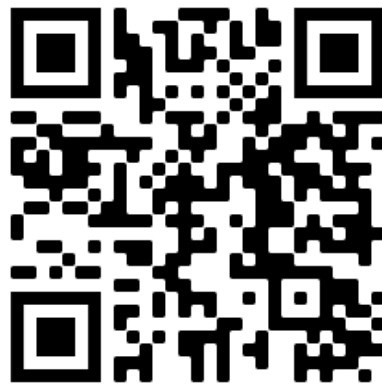
Ken waters  
@familytreeaz

<http://familytreeaz.com/presentations>



January 2024

All slides and handouts can be found at:  
<http://www.familytreeaz.com/Presentations/>



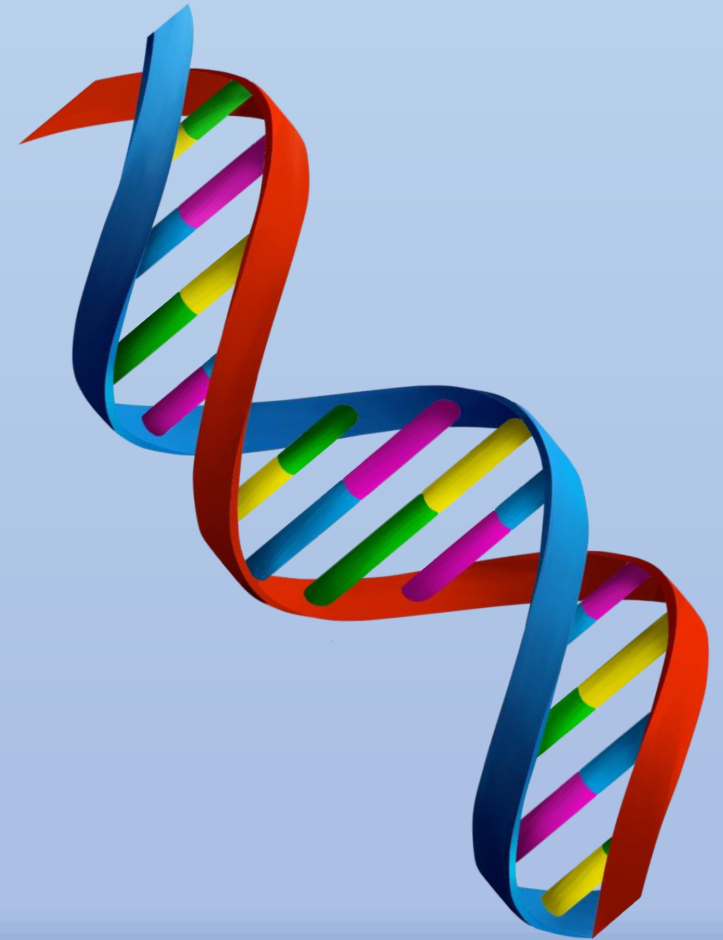
QR Code: take photo to  
open to presentations

# Topics

- What companies are available?
- What are some advantages/disadvantages of each?
- What's a good testing strategy?
- Important recent significant changes

# Types of DNA tests

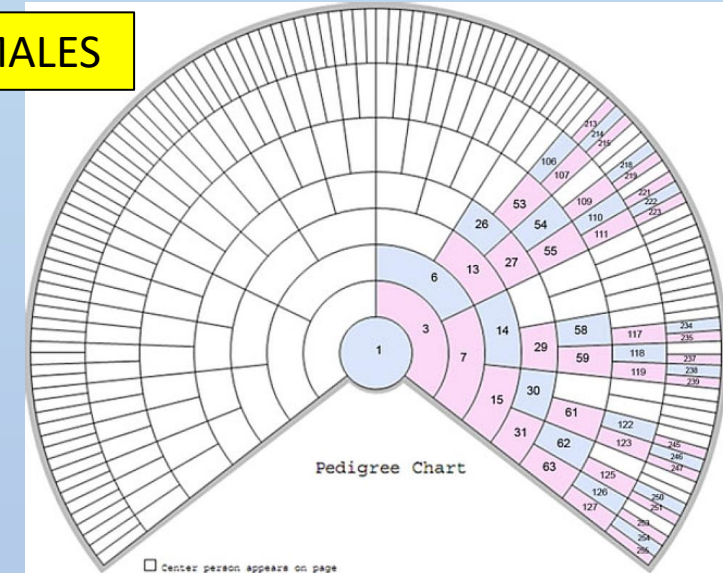
- Autosomal
  - The vast majority of DNA tests are this type
  - Relatively inexpensive (\$49-\$99)
  - **FOCUS of this presentation is on Autosomal**
- Y-DNA **ADVANCED**
  - Only used for male subjects and can find matches along the same patrilineal line
  - Can be expensive (up to \$300 for more precision/markers)
- mtDNA (Mitochondrial) **ADVANCED**
  - Can be used to solve matrilineal line questions
  - Expensive (~ \$200)
- Full Genome Sequencing (FGS) **ADVANCED**
  - New kid on the block!
  - More expensive (~\$1000) but cost is going down



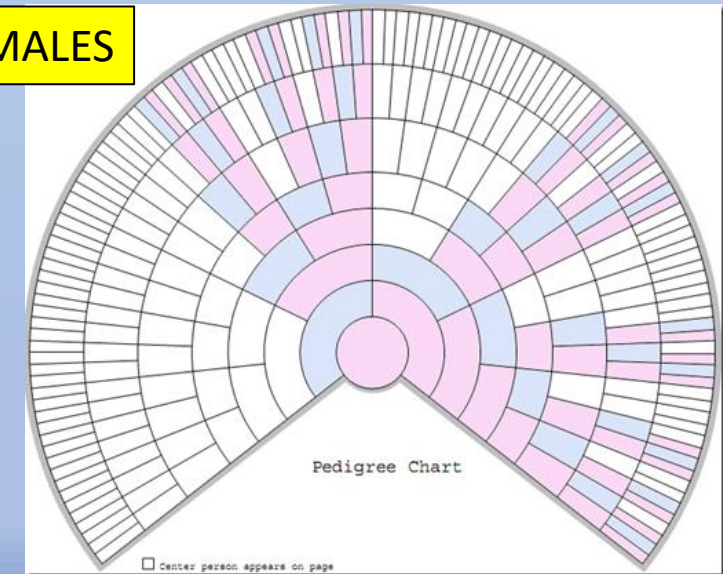
# What about X-DNA?

- There is no standalone test for X-DNA
- X-DNA has a unique descendancy pattern that can sometimes be useful to solve ancestry questions
- Males can only inherit X-DNA from their mothers whereas Females get it from both parents
- All companies we will look at test for X-DNA
  - HOWEVER: currently only Family Tree DNA reports X-DNA amounts
  - For more analysis you have to download your “raw” DNA and upload to a 3<sup>rd</sup> party tool such as GEDMatch

MALES



FEMALES

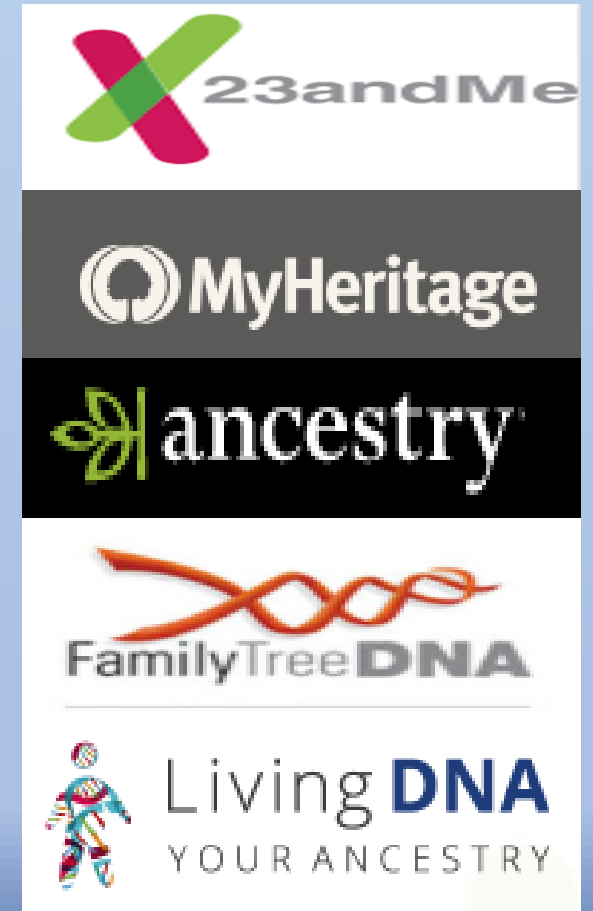


<https://thegeneticgenealogist.com/>

What DNA Testing  
Companies Are Available?

# Testing company options -- Autosomal

- There are 5 known and recommended companies at this time:
  - Ancestry
  - Family Tree DNA
  - MyHeritage
  - 23andMe
  - Living DNA
- There are others out there but not recommended for a variety of reasons



# What to look for with testing companies

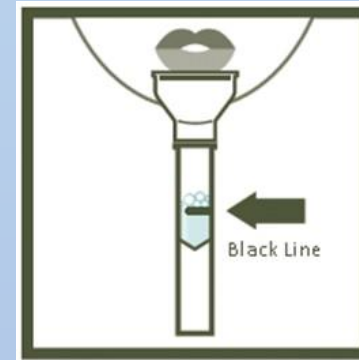
- What all 5 companies have:
  - Provide **ethnicity** estimates (emphasis on "estimates")
  - Provide a list of others who match the tester's DNA (**shared matches**)
  - Ability to **download** raw DNA data file
  - Test **autosomal chromosomes** (1-22)
- What some of them have:
  - Provide family trees for your matches
  - Provide health information
  - Ability to group matches that are common to each other
  - Ability to upload raw DNA data file from other companies
  - Test other aspects of DNA such as X-DNA, Y-DNA, and mitochondrial (mtDNA)



# How is a DNA Test Taken?

- Saliva test

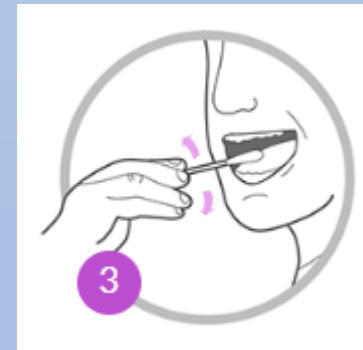
- Done by Ancestry and 23andMe



<https://support.ancestry.com/s/article/Collecting-a-Saliva-Sample>

- Cheek swab

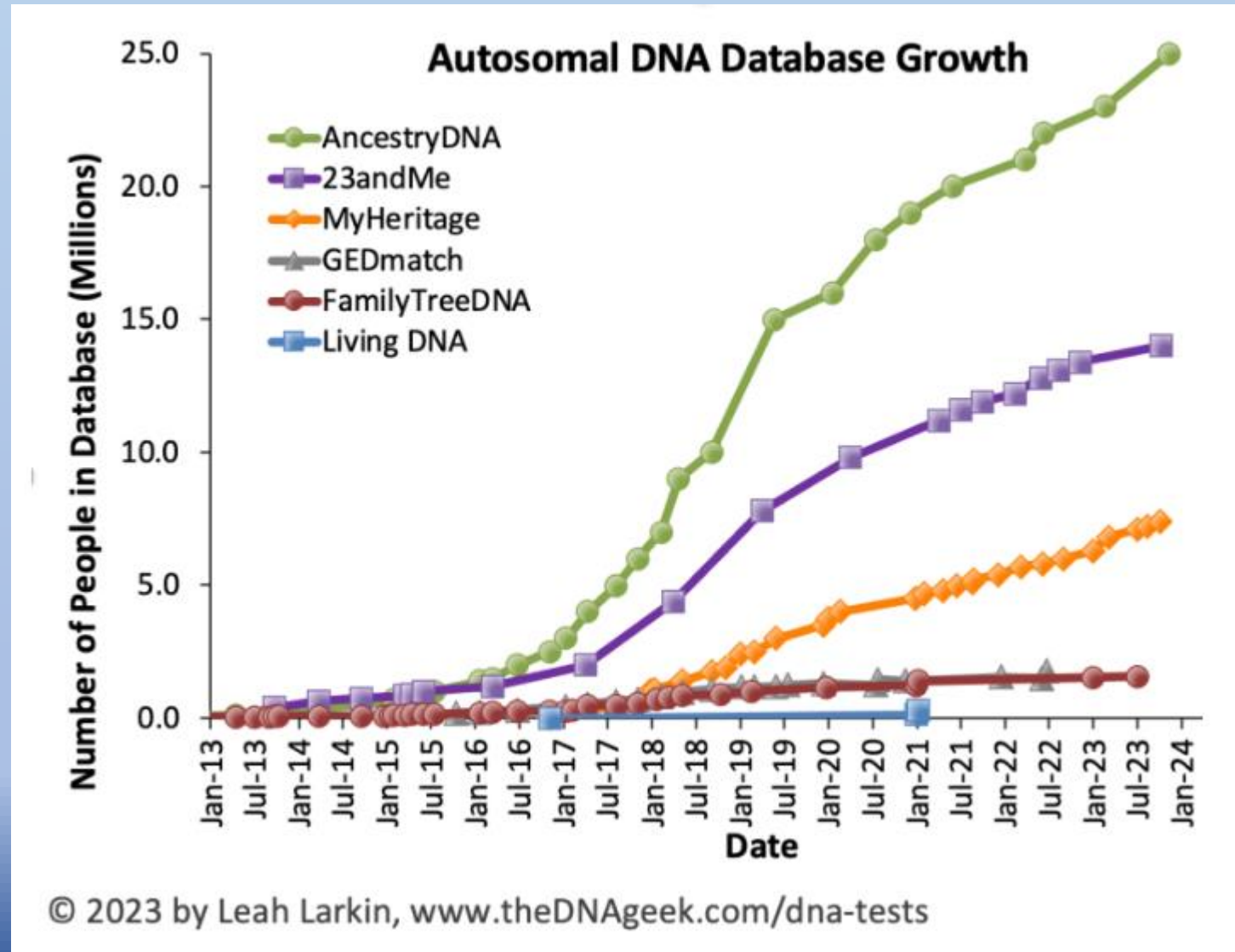
- Done by Family Tree DNA, My Heritage, and Living DNA



<https://www.myheritage.com/dna/instructions>

# Comparative Database Sizes (autosomal kits)

- This chart shows the change over time of the number of DNA kits with each service
- The top 2 services do *\*not\** allow uploads of kits from the other companies



# Why is Database Size Important?

- The larger the database, the greater the chances of finding significant matches

Note: some testing companies may have more coverage of certain regions. E.g., MyHeritage has higher percentage of test-takers living in Europe; most of Ancestry test-takers are from U.S. and Canada

# Deeper Dive into the Testing Companies

For each company I will highlight pros and cons including one primary pro and con for each company

# Aspects of Each Testing Company

- Ancestry

- Pluses:

- **Largest database of testers, over 25 million**
    - Excellent linkage to a wide array of family trees
    - Useful common ancestor hints
    - Good tools for sorting matches and viewing shared matches
    - Good detailed ethnicity estimates for some

- Negatives:

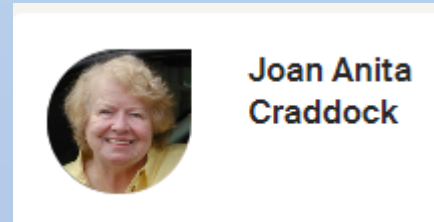
- **No chromosome browser for advanced work**
    - No display of X-DNA matches
    - Will not accept DNA kits from other companies
    - Tester database is mostly composed of U.S. and Canada test-takers



# Ancestry DNA Matches

- Each match includes:

- Name
- Relationship estimate
- Amount of shared DNA
- SideView estimate (maternal/paternal)
- Tree, if available
- Common Ancestor hint, if applicable
- Tag Group designations (user controlled)
- User entered Notes

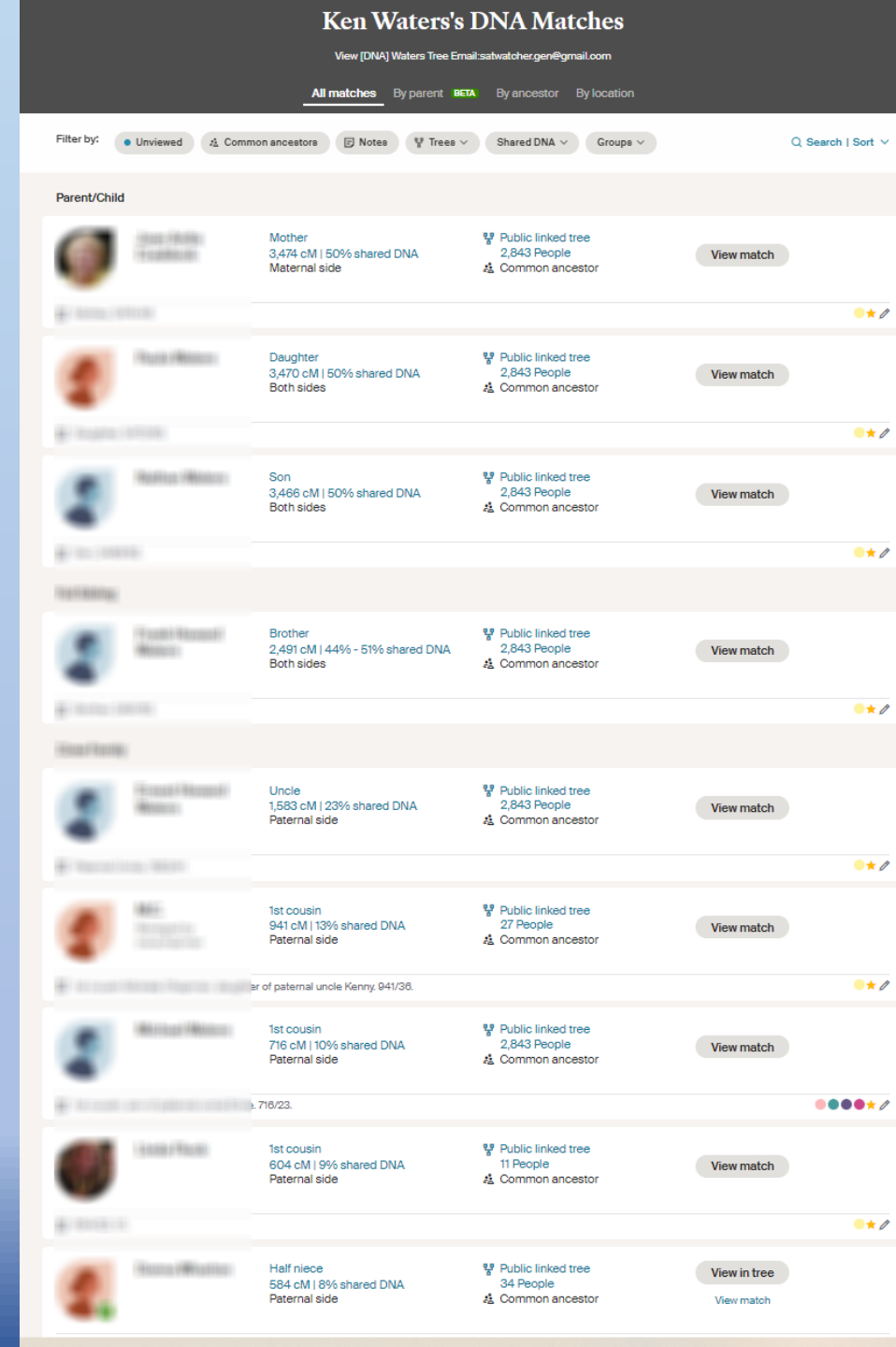


Mother  
3,474 cM | 50% shared DNA  
Maternal side

Public linked tree  
2,843 People  
Common ancestor



Mother, 3474/46.



# Useful Features of Ancestry DNA

## SideView

Ken Waters's DNA Matches  
View [DNA] Waters Tree Email: swhatchergem@gmail.com

All matches **By parent** **HERA** By ancestor By location

Updated Dec 2022

### Maternal

16,621 matches

Last names in trees: Archer, Auld, Barnes, Craddock

Common communities: Missouri Settlers

Ethnicity inheritance: Maternal

### Paternal

9,214 matches

Last names in trees: Lemos, Sylvia, Constancia, Avila

Common communities: Southwestern Quebec, New York & Vermont, French Settlers

Ethnicity inheritance: Paternal

### Both sides

3 matches

Last names in trees: Abt, Allaby, Allee, Alley

Why are some matches related to both parents? They could descend from both parents as distant relatives who have segments matching both sides, or come from a small population (like an island) where parents belong to.

### Unassigned

2,284 matches

Why are some matches unassigned? If a match appears in this category, it could be because their test was processed after our last update or because we don't have enough information to assign them to one parent or the other. You may see updates in the future, in which case some unassigned matches may be assigned to a side.

## ThruLines

Filters

ThruLines®  
ThruLines shows how you may be related to your DNA matches through ancestors you share. You get ThruLines when ancestors from your tree are also in a match's tree. Pick an ancestor to see which matches descend from them. [Learn more about ThruLines.](#)

### Parents

Richard Joseph Waters (Father, 1926-1979)  
Joan Anita Craddock (Mother, 1926-2015)

### Grandparents

Joseph John Waters (Paternal grandfather, 1896-1965)  
Caroline Margaret Sylvia (Maternal grandmother, 1893-1963)  
Charles Noble Craddock (Maternal grandfather, 1905-1983)  
Mardell Lillian Huntley (Maternal grandmother, 1908-2006)

### Great Grandparents

Terence Waters (2nd great-grandfather, 1825-1902)  
Sabina Gallagher (2nd great-grandmother, 1830-1901)  
Joseph Mortimer Berkeley (2nd great-grandfather, 1846-1880)  
Mary Ann Wheeler (2nd great-grandmother, 1846-1913)  
Manuel Correia da Silva (2nd great-grandfather)  
Luisa Candida (2nd great-grandmother)  
Feliciano Machado De Lemos (2nd great-grandfather, 1834-1904)  
Delfina Candida San Jose (2nd great-grandmother, 1843-1901)

## Tag groups

Starred matches

0 - Distant Saved Matches

1 - Waters/Unknown

2 - Berkley/Wheeler

3 - Sylvia/Correia

4 - Lemos/San Jose

DI -- Mom's side

Ferry/Elder on Spencer/Cumm...

Inner Family

Low matches (6-8)

Mystery Network #6

Mystery Network #7 -- Mom's...

Mystery Shipp Network

No idea---no shares

UNKNOWN #9 Mom's Side

Unknown Mom's Side

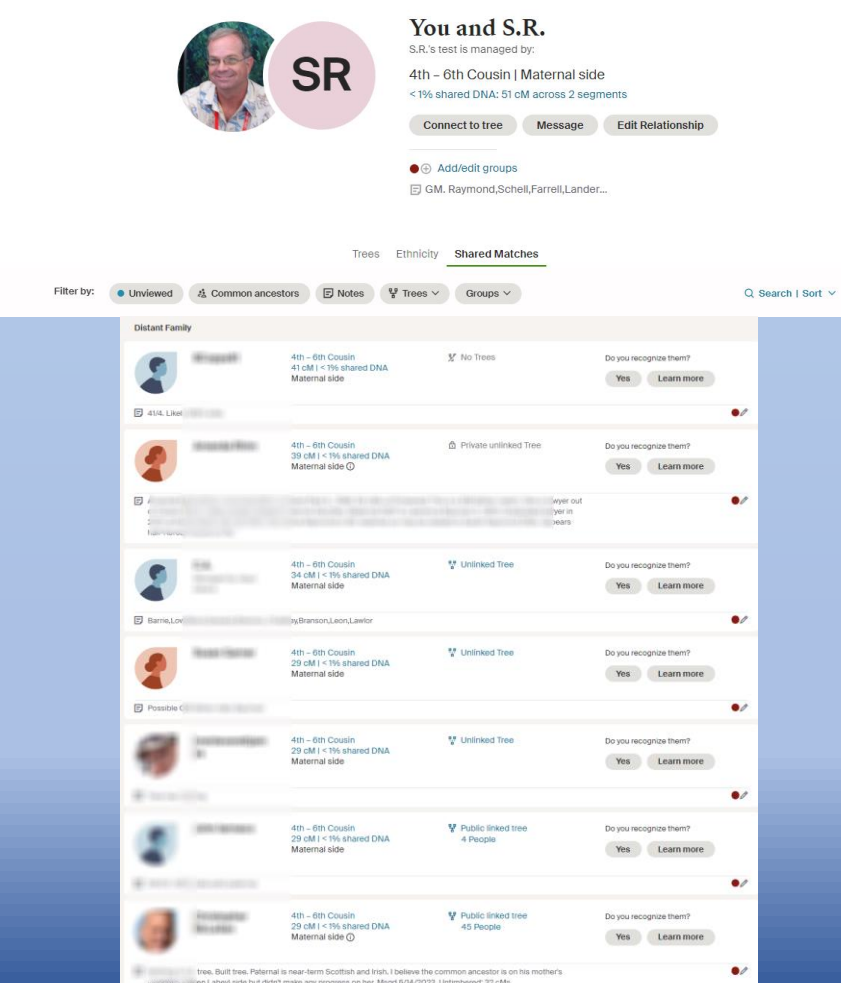
Unknown Orphan Cluster

Unknown WBW Stanfield/Ziegl...

Special Note: some or all of these features may soon require an additional fee for non-subscribers

# Shared Matches in Ancestry DNA

- This, in my opinion, is by far the **MOST USEFUL** tool in Ancestry DNA
- Can help to quickly determine which line a DNA match falls into



The screenshot shows the 'Shared Matches' interface for a match with 'S.R.'. At the top, it identifies the match as a '4th - 6th Cousin | Maternal side' with '< 1% shared DNA: 51 cM across 2 segments'. Below this are buttons for 'Connect to tree', 'Message', and 'Edit Relationship'. A section for 'Add/edit groups' shows a group named 'GM. Raymond,Schell,Farrell,Lander...'. The main area is a list of shared matches, filtered by 'Unviewed', 'Common ancestors', 'Notes', 'Trees', and 'Groups'. The list includes several entries, each with a profile picture, name, relationship type (e.g., '4th - 6th Cousin'), shared DNA amount (e.g., '41 cM | < 1% shared DNA'), and tree status (e.g., 'No Trees', 'Private unlinked Tree', 'Unlinked Tree', 'Public linked tree'). Each entry also has a 'Do you recognize them?' prompt with 'Yes' and 'Learn more' buttons.

Match Name	Relationship	Shared DNA	Tree Status	Recognize?
[Profile]	4th - 6th Cousin	41 cM   < 1% shared DNA	No Trees	Do you recognize them? Yes Learn more
[Profile]	4th - 6th Cousin	29 cM   < 1% shared DNA	Private unlinked Tree	Do you recognize them? Yes Learn more
[Profile]	4th - 6th Cousin	34 cM   < 1% shared DNA	Unlinked Tree	Do you recognize them? Yes Learn more
[Profile]	4th - 6th Cousin	29 cM   < 1% shared DNA	Unlinked Tree	Do you recognize them? Yes Learn more
[Profile]	4th - 6th Cousin	29 cM   < 1% shared DNA	Unlinked Tree	Do you recognize them? Yes Learn more
[Profile]	4th - 6th Cousin	29 cM   < 1% shared DNA	Public linked tree (4 People)	Do you recognize them? Yes Learn more
[Profile]	4th - 6th Cousin	29 cM   < 1% shared DNA	Public linked tree (45 People)	Do you recognize them? Yes Learn more



# Aspects of Each Testing Company: 23andMe

- 23andMe
  - Pluses:
    - **Large database of testers (> 12 million), many not available at other testing companies**
    - Chromosome browser
    - Upgrade to health aspects for those interested
  - Negatives:
    - **Complicated process to share data with DNA matches**
    - No genealogy research database
    - Most kits will be limited to 1,500 closest matches, thus not revealing more distant matches
    - Will not accept DNA kits from other companies



TIP: I found 3 unknown 2<sup>nd</sup> cousins on 23andMe! 2 of them were adoptees with unknown parentage which I helped them solve

# 23 and Me Matches

- Name
- Amount of Shared DNA (using % rather than centiMorgans)
- Relationship estimate

## DNA Relatives

Get started with your predicted relationships, then connect and message to learn more.

Filters Showing 1503 of 1503 relatives Sort by Strength of Relationship

Search keywords  
Name, location, notes

Reset

Notifications

Profile features and activity

Mother's side/Father's side

Ancestor birthplaces

Connections

Family names











☆ MC	Michelle Chapman	1st Cousin 12.88% DNA shared, 28 segments Connected
★ MH	Michelle Hanson	1st Cousin, Once Removed 5.04% DNA shared, 15 segments
☆ DT	David Taylor	1st Cousin, Once Removed 3.10% DNA shared, 9 segments Invitation sent
☆ CR	Chris	2nd Cousin 3.37% DNA shared, 13 segments Invitation sent
☆ TW	Teresa Williams	2nd Cousin 3.23% DNA shared, 12 segments Invitation sent
☆ SM	Steve Morgan	2nd Cousin 3.09% DNA shared, 15 segments Connected
☆ ME	Michael McElroy	2nd Cousin 2.84% DNA shared, 12 segments Connected
☆	Michelle Spivey (Lambert)	2nd Cousin 2.68% DNA shared, 10 segments Connected
★ HS	Helen Hutchinson	2nd Cousin 2.55% DNA shared, 7 segments Connected
☆	Steve Thomas	2nd Cousin 2.41% DNA shared, 9 segments Connected
☆ FB	Frank Bailey	2nd Cousin, Once Removed 2.59% DNA shared, 8 segments Invitation sent
☆ CW	Christine Williams	2nd Cousin, Once Removed 2.25% DNA shared, 7 segments Invitation sent

# 23 and Me Matches in Common

- Relatives in Common can be very instrumental to determining how you are related to a match

CURRENTLY DISABLED

You have Relatives in Common  
Each Relative in Common shares at least one small segment of DNA with Michael.

Relative in common	You	Michael	DNA Overlap ⓘ
 <b>MH</b> <a href="#">William Thomas</a>	1st Cousin, Once Removed (5.04)	Distant Cousin (0.08)	No
 <b>CR</b> <a href="#">LH</a>	2nd Cousin (3.37)	Sister (49.67)	Request sent
 <b>Relative</b> <a href="#">Name Thomas</a>	2nd Cousin (2.41)	3rd Cousin (1.55)	Yes
 <b>CW</b> <a href="#">Charles Williams</a>	2nd Cousin, Once Removed (2.25)	3rd Cousin (1.14)	Request sent
 <b>Relative</b> <a href="#">Name Williams (Smith)</a>	2nd Cousin, Once Removed (2.19)	Daughter (50.00)	Yes
 <b>BV</b> <a href="#">Barbara Williams</a>	3rd Cousin (1.01)	3rd Cousin (0.85)	Yes
 <b>DH</b> <a href="#">Henry Williams</a>	3rd Cousin (0.90)	5th Cousin (0.11)	Yes
 <b>JM</b> <a href="#">James Williams</a>	3rd Cousin (0.78)	3rd Cousin (0.62)	Yes
 <b>LV</b> <a href="#">Linda Williams</a>	3rd Cousin (0.67)	4th Cousin (0.45)	Yes
 <b>LA</b> <a href="#">Linda Williams</a>	3rd Cousin (0.66)	4th Cousin (0.41)	Yes

1 2 3 4 5 6 7 8 9 10 Next >

# Aspects of Each Testing Company

- FamilyTreeDNA

- Pluses:

- **Ability to re-use DNA sample on other types of test**
    - Rich, long history of working with DNA
    - The “go to” site for testing Y-DNA and mtDNA
    - Chromosome browser **CURRENTLY DISABLED**
    - Allows uploads from other testing companies

- Negatives:

- **Relatively small database**
    - No genealogy research facilities
    - No capability to manage more than one kit in a single account



# Matches in FamilyTreeDNA

- Names
- Estimated relationship
- Shared DNA
- If an “X” match

Family Finder Matches ? Help

All Matches Detail View Table View Exact Search Search All

All (5317) Paternal (674) Maternal (2751) Both (4) Filter Sort by Export CSV

Calculating Family Matching...

Waters	Waters	Waters	Waters	Ernest Waters	Waters	Donna	June
<p>Ancestral Surnames Not Provided</p>	<p>Ancestral Surnames Not Provided</p>	<p>Ancestral Surnames Not Provided</p>	<p>Ancestral Surnames Not Provided</p>	<p>Ancestral Surnames Not Provided</p>	<p>Ancestral Surnames Not Provided</p>	<p>Ancestral Surnames Not Provided</p>	<p>Ancestral Surnames Not Provided</p>
<p>Haplogroup Y-DNA: N/A mtDNA: N/A</p>	<p>Haplogroup mtDNA: N/A</p>	<p>Haplogroup mtDNA: N/A</p>	<p>Haplogroup Y-DNA: N/A mtDNA: N/A</p>	<p>Haplogroup Y-DNA: N/A mtDNA: N/A</p>	<p>Haplogroup Y-DNA: N/A mtDNA: N/A</p>	<p>Haplogroup mtDNA: N/A</p>	<p>Haplogroup mtDNA: N/A</p>
<p>Relationship Range Parent/Child <a href="#">Link on Family Tree</a></p>	<p>Relationship Range Parent/Child <b>MOTHER</b></p>	<p>Relationship Range Parent/Child <a href="#">Link on Family Tree</a></p>	<p>Relationship Range Full Sibling <a href="#">Link on Family Tree</a></p>	<p>Relationship Range Half Sibling, Uncle/Aunt/Niece/Neph... <b>UNCLE</b></p>	<p>Relationship Range 1st Cousin - 2nd Cousin, Great/Half... <a href="#">Link on Family Tree</a></p>	<p>Relationship Range 1st Cousin - 2nd Cousin, Great/Half... <a href="#">Link on Family Tree</a></p>	<p>Relationship Range 1st Cousin - 2nd Cousin, Great/Half... <a href="#">Link on Family Tree</a></p>
<p>Shared DNA 3565 cM</p>	<p>Shared DNA 3565 cM</p>	<p>Shared DNA 3557 cM</p>	<p>Shared DNA 2634 cM</p>	<p>Shared DNA 1655 cM</p>	<p>Shared DNA 767 cM</p>	<p>Shared DNA 624 cM</p>	<p>Shared DNA 444 cM</p>
<p>Longest Block 284 cM</p>	<p>Longest Block 284 cM</p>	<p>Longest Block 284 cM</p>	<p>Longest Block 198 cM</p>	<p>Longest Block 168 cM</p>	<p>Longest Block 129 cM</p>	<p>Longest Block 88 cM</p>	<p>Longest Block 69 cM</p>
<p>X Match No Match</p>	<p>X Match 181 cM</p>	<p>X Match 181 cM</p>	<p>X Match 122 cM</p>	<p>X Match No Match</p>	<p>X Match No Match</p>	<p>X Match No Match</p>	<p>X Match No Match</p>
<p>Match date: May 12 2021</p>	<p>Match date: May 12 2021</p>	<p>Match date: May 12 2021</p>	<p>Match date: May 12 2021</p>	<p>Match date: May 12 2021</p>	<p>Match date: May 14 2021</p>	<p>Match date: May 14 2021</p>	<p>Match date: May 12 2021</p>

# Aspects of Each Testing Company: MyHeritage

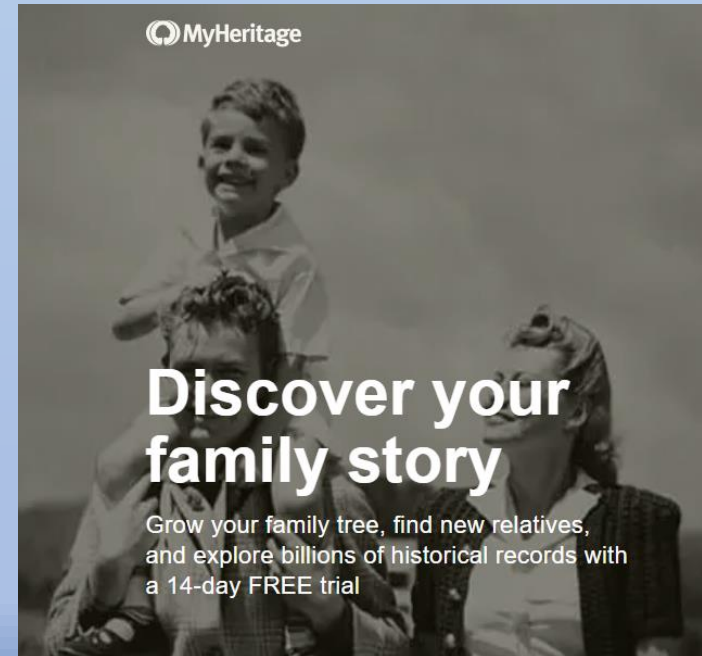
- MyHeritage

- Pluses:

- **Powerful shared matches capabilities**
    - Best chance to find European DNA test takers
    - Robust tools such as auto-cluster available with upgrade
    - Excellent Chromosome browser
    - Genealogy research facilities
    - Suggested Relatives (Theory of Family Relativity)
    - Allows uploads from other testing companies

- Negatives:

- **Smaller database compared to Ancestry and 23andMe**



# My Heritage Matches

- Very useful capability to not only see how much DNA you share with the match but also how much your match shares with other matches (can often help to discern parent-child or aunt-uncle relationships)

This screenshot shows two DNA matches from the MyHeritage interface. The top match is for a Great-niece, identified as Waters, with a 10.5% DNA share (741.7 cM). The bottom match is for a Son, identified as Waters, with a 50.0% DNA share (3,541.9 cM). Both matches include a profile picture, a star icon, and a share icon.

This screenshot shows the MyHeritage DNA Matches page for user Ken Waters. The page displays a list of 14,473 DNA matches, with the first 10 shown. Each match entry includes a profile picture, a star icon, a share icon, and a list of actions (Review DNA Match, View tree). The matches are as follows:

Name	Probable relationship	DNA Match quality	Shared DNA	Shared segments	Largest segment
Waters	Son	50.0%	3,541.1 cM	22	284.3 cM
Waters	Daughter	49.9%	3,540.7 cM	22	284.3 cM
Joan Waters (born Craddock)	Mother	49.8%	3,533.9 cM	22	284.3 cM
Waters	Brother	38.4%	2,581.4 cM	55	186.9 cM
Ernest Howard Waters	Uncle	22.8%	1,612.7 cM	35	133.4 cM

# MyHeritage – Theory of Family Relativity

- Suggest how you are related, largely based on existing family trees
- Has the capability to examine alternate “theories” and to accept one of them

DNA Matches > Review DNA Match >

## Theory of Family Relativity™ ⓘ

Probable relationship based on DNA: 3rd cousin.  
MyHeritage found a theory that may explain how [redacted] is related to you.

Theory: [redacted] is your 3rd cousin on your father's side

Confirmed Undo

We recommend that you add new information to your tree based on this theory. [Go to tree](#)

Path 1 Path 2 Path 3 Path 4 Path 5

This path is based on one community tree and 2 MyHeritage family trees, with 95% confidence

Waters Web Site managed by you

FamilySearch Family Tree

[redacted] managed by [redacted] USA

Felicianno Albert Machado Lemos  
Your great-great-grandfather  
1834 - 1904

Delphine San Jose  
Your great-great-grandmother  
1844 - 1901

Caroline Lemos  
Your great-grandmother  
1872 - 1913

Caroline C Lemos  
Your great-grandmother  
1872 - 1913

Jesse Henry Lemos, Sr  
Your great-grand uncle  
1873 - 1959

Delphine Lenore Lemos  
Your grandparent's 1st cousin  
1904 - 1981

Richard Waters  
Your father  
1919 - 1979

Aileen Rose Cedros  
Your parent's 2nd cousin  
1934 - 2015

Aileen Rose Cedros  
Your parent's 2nd cousin  
1934 - 2015

Ken Waters  
You  
Born: 1956

[redacted]  
Your 3rd cousin



# Aspects of Each Testing Company: LivingDNA

- LivingDNA
  - Pluses:
    - **Some emphasis on British Isles**
    - 3-in-1, single kit includes Y-DNA and mtDNA
    - Allows uploads from other testing companies
    - Chromosome browser (added July 2023)
  - Negatives:
    - **Very, very small database**
    - No family trees
    - No research database
    - Wacky ethnicity estimates
    - Worst analysis tools of all the companies
    - Tests for Y-DNA or mtDNA but no matching
    - History of trying to sell irrelevant add-ons (e.g., supplements, Viking ancestry)



# Living DNA

- Recently (2023) added ability to view segment data [chromosome browser]
- This is a very useful feature for advanced work to confirm triangulation between matches and thus common ancestral lines

In this example, a DNA match has 4 common segments of shared DNA, on chromosomes 1, 7, 9, and 15



# Living DNA Matches

- Very small database
- For me, Living DNA has only 1 kit above 100 centiMorgans whereas I have 47 on Ancestry!

Do not recommend purchasing a kit from Living DNA---instead upload for free

Ken's DNA relatives

Search by initials or display name

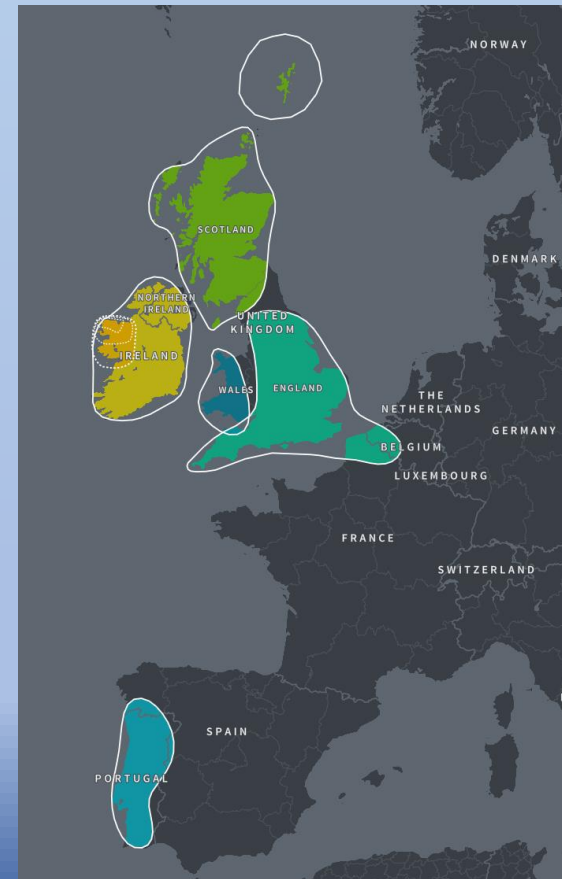
Per page 10 Sort by Genetic distance

Ken's 6th degree matches

	<b>2nd - 3rd cousin</b> 1.62% DNA shared (117.82cM) 7 shared segments	5 shared matches	>
	<b>2nd - 4th cousin</b> 0.73% DNA shared (52.84cM) 4 shared segments	7 shared matches	>
	<b>3rd - 5th cousin</b> 0.60% DNA shared (43.75cM) 5 shared segments	20 shared matches	>
	<b>3rd - 5th cousin</b> 0.53% DNA shared (38.33cM) 3 shared segments	6 shared matches	>
	<b>4th cousin or greater</b> 0.77% DNA shared (56.20cM) 4 shared segments	3 shared matches	>
	<b>4th cousin or greater</b> 0.65% DNA shared (47.37cM) 4 shared segments	4 shared matches	>
	<b>4th cousin or greater</b> 0.65% DNA shared (47.37cM) 4 shared segments	4 shared matches	>
	<b>4th cousin or greater</b> 0.57% DNA shared (41.60cM) 4 shared segments	13 shared matches	>
	<b>4th cousin or greater</b> 0.57% DNA shared (41.21cM) 5 shared segments	4 shared matches	>
	<b>4th cousin or greater</b> 0.53% DNA shared (38.35cM) 4 shared segments	4 shared matches	>

# What About Ethnicity Estimates?

- These are purely estimates and should not be relied on to any great extent
- May be interesting to view but of little use for genealogy
- **Wide** variation between companies
- Frequent updates can lead to confusing results



# What About Ethnicity Estimates?

## MyHeritage

EUROPE	
<b>Irish, Scottish, and Welsh</b>	<b>55.6%</b>
UK and Ireland	
<b>Iberian</b>	<b>25.9%</b>
<b>Scandinavian</b>	<b>18.5%</b>

Nice sub-county detail!

## Ancestry

<b>Ireland</b>	<b>36%</b>
Your community with a connection to this ethnicity region	
Connacht, Ireland	
North Connacht	
North Mayo	
<b>Scotland</b>	<b>33%</b>
<b>England &amp; Northwestern Europe</b>	<b>18%</b>
<b>Portugal</b>	<b>9%</b>
<b>Wales</b>	<b>4%</b>

## LivingDNA

Europe (North and West)	62.8%
France	56.9%
South Germanic	5.9%
Great Britain and Ireland	30.9%
Ireland	9.2%
Devon	6.6%
South Central England	4.5%
Northern Ireland and Southwest Scotland	3.2%
Southeast England	2.3%
South Wales Border	1.5%
Aberdeenshire	1.3%
Northwest England	1.2%
Cornwall	1.1%
Europe (South)	6.3%
West Iberia	6.3%

French??!!

## 23andMe

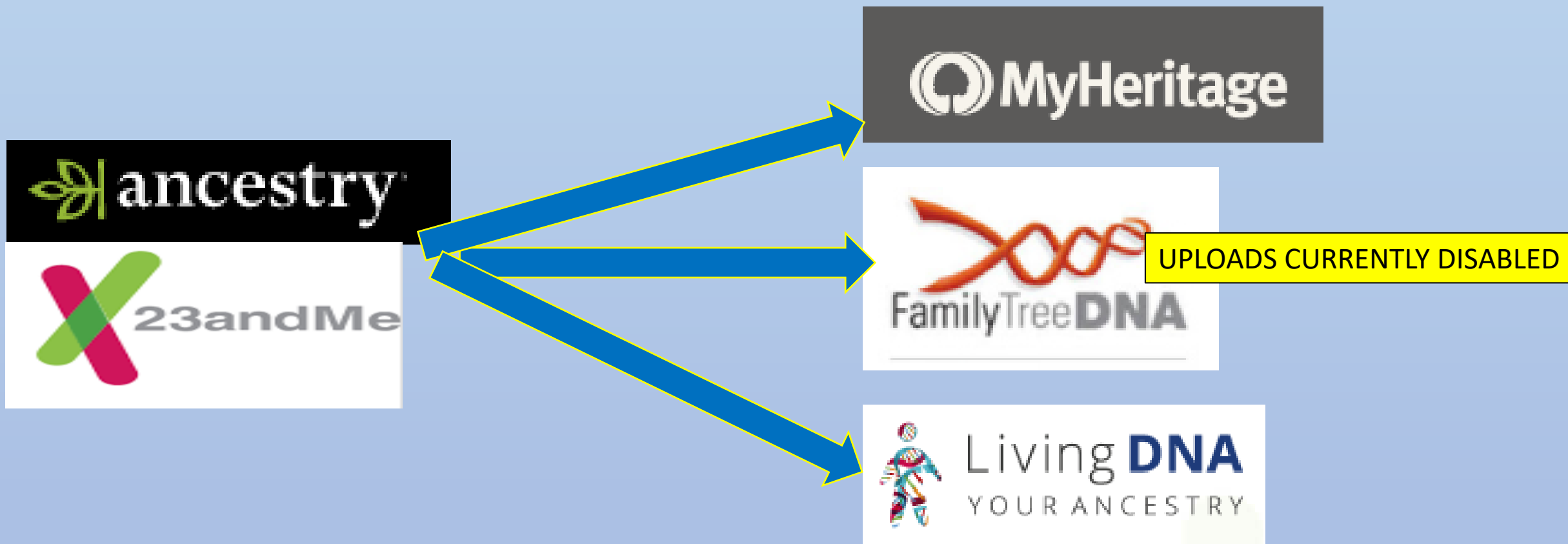
European	99.7%
Northwestern European	85.1%
British & Irish	85.1%
County Mayo, Ireland	
Greater London, United Kingdom	
+18 regions	
Southern European	14.5%
Spanish & Portuguese	13.7%
Azores, Portugal	
+3 regions	
Sardinian	0.6%
Broadly Southern European	0.2%
Broadly European	0.1%
Trace Ancestry	0.3%

## FTDNA

Europe	97%
Western Europe	
England, Wales, and Scotland	50%
Ireland	41%
Eastern Europe	
West Slavic	3%
Southern Europe	
Iberian Peninsula	3%
Middle East & North Africa	<3%
Middle East	
Sephardic Jewish	<3%

These are the ethnicity estimates for me as collected, March 16, 2022

# 3 of the 5 testing companies allow uploading

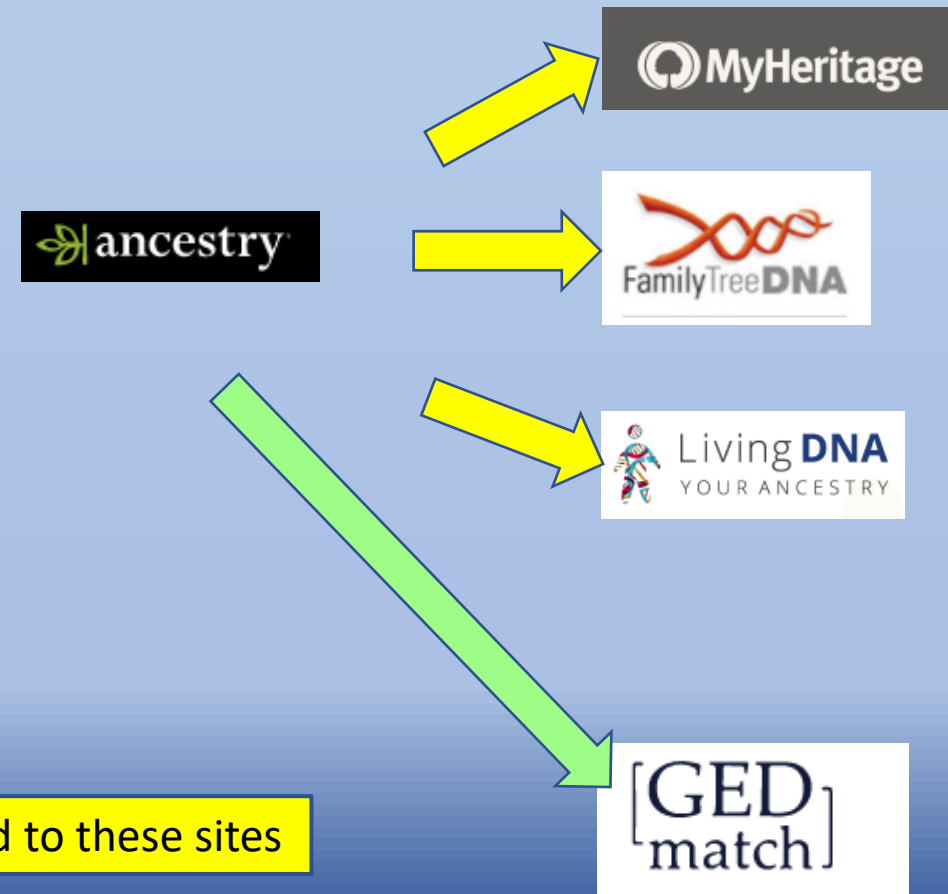


Allows you to use test results from one company to compare to other databases --- more matches!

FREE to upload (nominal cost to use extra analysis tools)

# Recommended Strategy

- Test with Ancestry first (largest database, excellent family tree tools)
- Download your DNA from Ancestry
- Upload to:
  - My Heritage
  - Family Tree DNA
  - Living DNA
  - GEDMatch (not a testing company)
- The key here is to have your DNA in all 5 testing companies plus GEDMatch



# Summing Up!

Status as of Jan 2024

Company	Method	Database Size	Family Trees	Shared Matches	Segment Data	Allows Uploads	Source Searches	Upgrade Cost	Suggest Relatives
23andMe	Spit	13M	N	Y DISABLED	Y DISABLED	N	N	~\$50 (health)	N
Ancestry	Spit	25M	Y	Y	N	N	Y	\$10/mo	Y
Family Tree DNA	Swab	1M+	Y	Y	Y DISABLED	Y	N	\$19	N
Living DNA	Swab	<1M?	N	Y	Y	Y	N	various	N
My Heritage	Swab	7M	Y	Y	Y	Y	Y	\$29	Y

## Notes:

- Living DNA does not release database size so this is estimated
- Living DNA has many different upgrade options for various prices
- Ancestry will soon be requiring upgrades for various match comparison features for non-paid subscribers (price estimated)



# 23andMe Breach

- In October 2023 it was revealed that 23andMe had a breach which compromised account data for millions of users
- As a result, significant changes have been applied to their user interface
- This has also impacted the other testing companies in various ways, affecting what data are available and the ways in which users can log in

## Hackers access profiles of nearly 7 million 23andMe customers



By Sean Lyngaas, CNN

2 minute read · Updated 1:30 PM EST, Tue December 5, 2023



<https://www.cnn.com/2023/12/05/tech/hackers-access-7-million-23andme-profiles/index.html>

# IMPORTANT: Recent Changes

- 23andMe

- October 2023 -- Removed several important functions including ability to view shared matches, segment data, and ability to download matches and “raw” DNA --- company claims these will be restored but has not said when. **Greatly** reduces the usefulness of the site
- Now requires 2-Factor authorization

NOTE: I do not recommend testing with 23andMe until they restore the ability to view shared matches and segment data

NOTE: this is all subject to change at any time.

# Recent Changes

- Ancestry
  - Began requiring 2-Factor authorization
  - Soon to be requiring an additional fee for a number of important DNA tools (does not include those with active paid subscriptions)
- Family Tree DNA
  - Segment data and match lists are currently disabled – no estimate for restoral
  - 2-Factor authorization coming (no estimate when)

NOTE: this is all subject to change at any time.

# Upcoming Classes/Presentations

Sat , Feb 3, 3 pm

Topic: Sharing Your DNA Results with Other Services



Presentations:

<http://familytreeaz.com/Presentations>



All library classes (highlighted blue) are free to attend and require no registration. Classes are held at the Red Mountain Mesa Public Library at 635 N Power Rd in Mesa (unless otherwise noted above).

**FamilyTreeAZ.com**



Presentations:

<http://familytreeaz.com/Presentations>



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