

Taking the Next Steps in Your DNA Research

Salt Lake City Research Tour 2025

Christopher C. Child, Senior Genealogist

THE BRUE FAMILY LEARNING CENTER

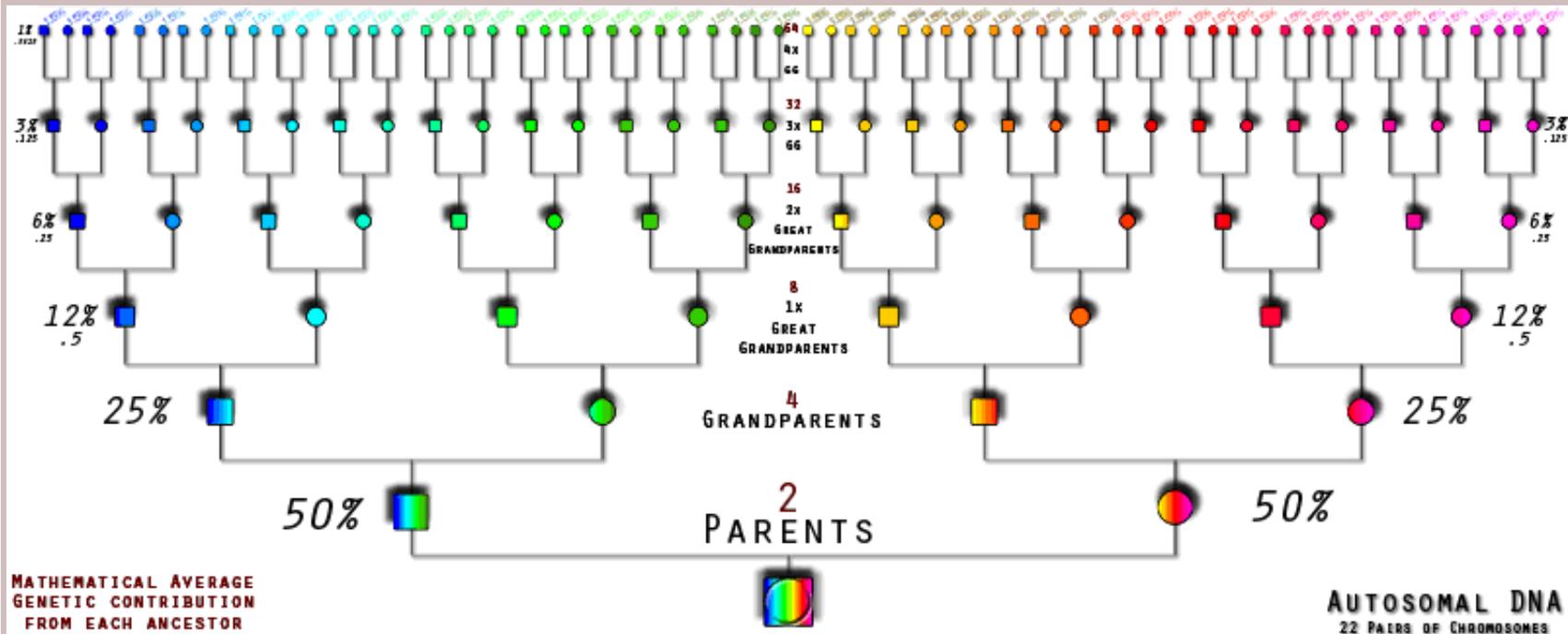


American Ancestors[®]
A NATIONAL CENTER FOR FAMILY HISTORY, HERITAGE & CULTURE

Overview

- How to plan a DNA project
- Finding test takers
- Organizing your results
- Using the cM chart to find MRCA

Review: The Basics of DNA Inheritance



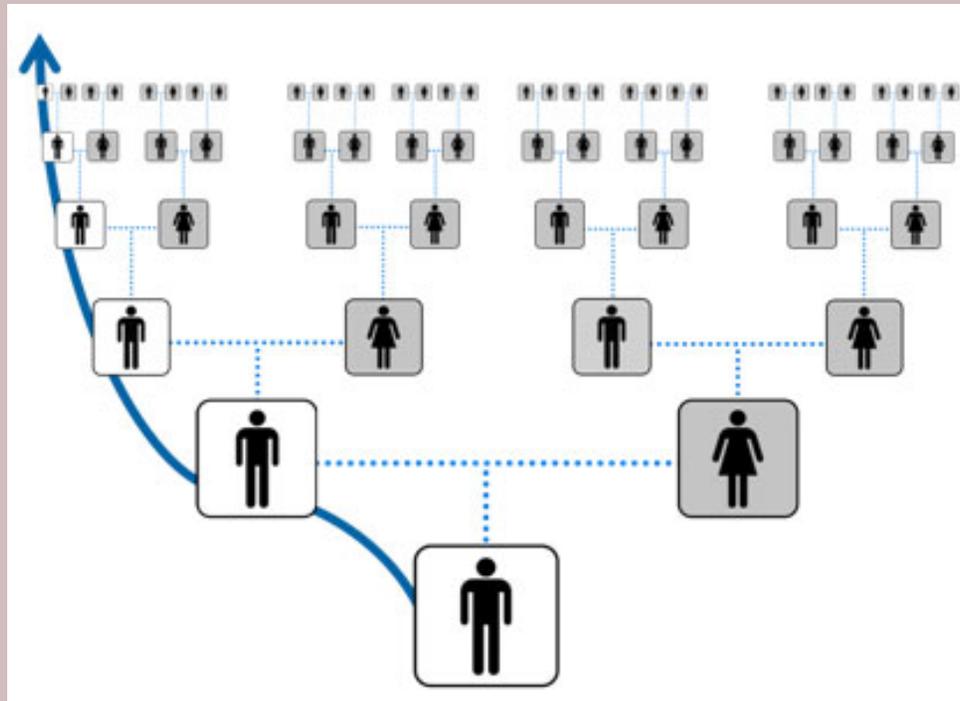
Each human cell has 22 chromosomes split from the mother's and father's cells

Autosomal inheritance

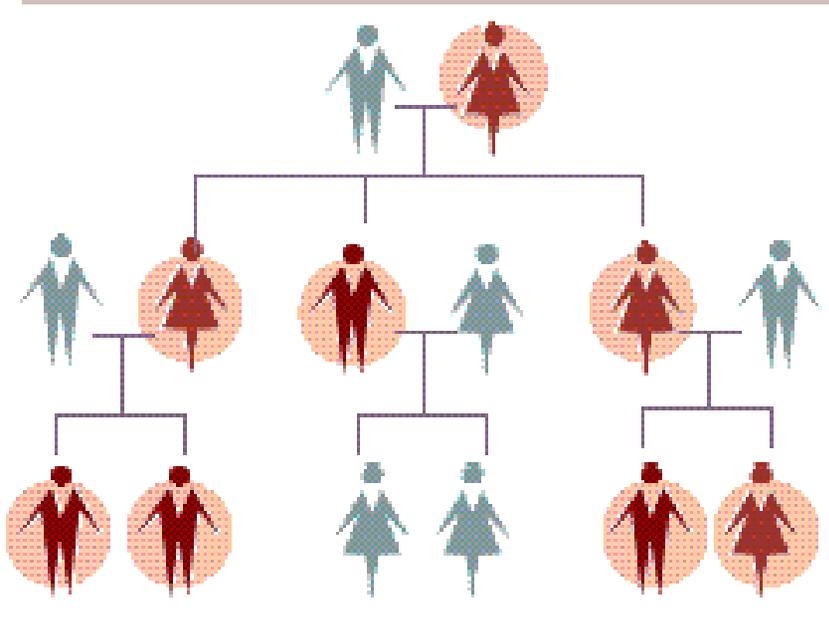
	Christopher Child	Father Paternal side 3,479 cM 50% shared DNA	 Public linked tree 132 people  Common ancestor	+ Add ...
	Arlene Ovalle-Child	Mother Maternal side 3,372 cM 50% shared DNA	 Public linked tree 132 people  Common ancestor	+ Add ...
Full Sibling				
	Daniela Child	Sister Both sides 2,979 cM 50 - 57% shared DNA	 Public linked tree 132 people  Common ancestor	+ Add ...
Close Family				
	Claudia Ovalle	Grandmother Maternal side 1,947 cM 28% shared DNA	 Public linked tree 132 people  Common ancestor	+ Add ...
	William Child	<u>Grandfather</u> Paternal side 1,922 cM 28% shared DNA	 Public linked tree 132 people  Common ancestor	+ Add ...
	Jose Amado Ovalle Badia	Grandfather Maternal side 1,559 cM 22% shared DNA	 Public linked tree 132 people  Common ancestor	+ Add ...
	Joy Challenger	Grandmother Paternal side 1,532 cM 22% shared DNA	 Public linked tree 132 people  Common ancestor	+ Add ...
	Virginia Child	Grandaunt Paternal side 733 cM 11% shared DNA	 No trees	+ Add ...

Y-DNA Testing

- Y chromosome passed from father to son



mtDNA Testing



- Inherited from mother to child
- Males inherit mtDNA, but do not pass mtDNA to their child

Why Do Anything Else?

Did They Even See Everything?

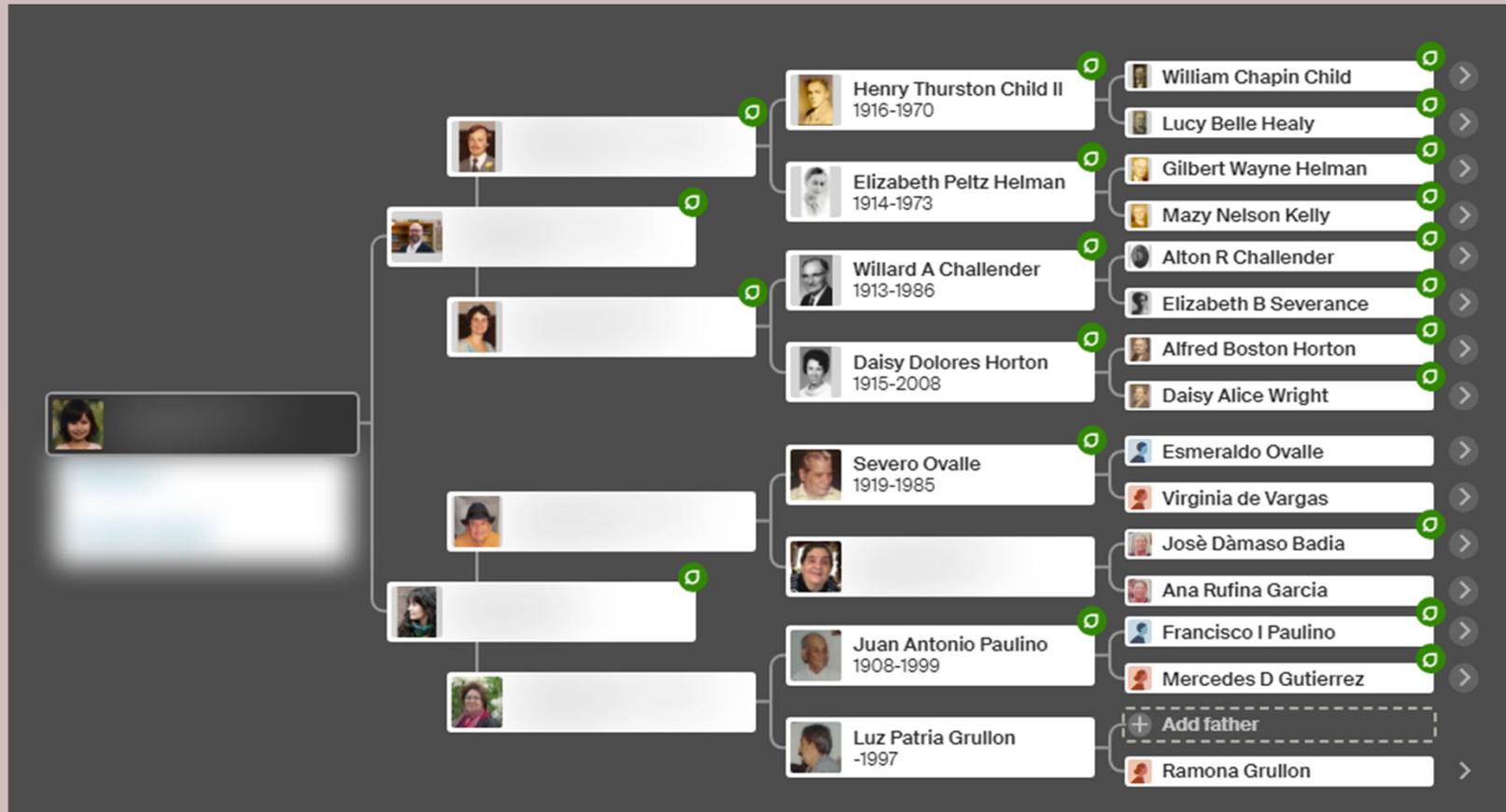
The screenshot shows the Ancestry website interface. At the top, the Ancestry logo is on the left, and navigation links for Home, Trees, Search, Memories, and DNA are in the center. On the right, there is a 'Hire an Expert' button and notification icons, including a red circle with the number 37. The main content area is split into two columns. The left column features a blurred profile picture, a blue 'Message' button, and two statistics: 'Joined 31 Dec 2018' and 'Last active Over a year ago'. The right column has a 'DNA relationship to' section with a blurred name and a link to 'Order a DNA test'. Below this is a 'Family History' section containing a 'PUBLIC FAMILY TREE' card with a green 'Public' icon and a table of statistics: People: 3, Records: 0, and Media: 0. At the bottom of the right column, there is a disclaimer: 'The content of this page should adhere to our [community guidelines](#). Please [report any abuse](#) that does not follow our guidelines.'

Creating a Plan of Action

Getting the Most From Your Results

- Provide a well-researched and documented tree at the testing company website. Try to go back 8 generations to your 6th great-grandparents where possible.
- Link your test to yourself at Ancestry, MyHeritage and FamilyTreeDNA.
- Update your Profile with surname and location information.

Benefits of Sharing / Going Private



Organizing Your Results

Write Notes

- Most Recent Common Ancestors/Couple
- Surnames and/or Locations

The screenshot shows the MyHeritage website interface. At the top, there are navigation links: Home, Family tree, Discoveries, Photos (with a 'NEW' badge), DNA, and Research. Below the navigation is a user profile for Pamela Holland, with a note that she is the user and is showing 1-10 of 9,677 DNA matches. The main content area is split into two columns. The left column shows a match for Cheryl, with details: Age: 50's, From: USA, and an estimated relationship of 2nd cousin - 2nd cousin once removed. Below this, it says she appears in a family tree with 7 people that she manages. A 'Confirmed' match is shown as Cheryl is the user's 3rd cousin once removed according to the tree. Ancestral surnames common to both are listed as including Smith. The right column is a 'Notes' window with a text area containing the text '3C1R. MRCA Birney Pratt & Almira Jeroux.' Below the text area are 'Close' and 'Save notes' buttons.

Create Groups and Labels

- Colored dots for ancestral lines or theories

The screenshot displays the 'Holland's DNA Matches' page. At the top, it says 'View Holland, Hayes, Kearney & Moroney Family'. Below this are filter tabs: 'All matches' (selected), 'By parent BETA', 'By ancestor', and 'By location'. A 'Filter by:' section includes buttons for 'Unviewed', 'Common ancestors', 'Messaged', 'Notes', 'Trees', 'Shared DNA', and 'Groups'. The 'Groups' dropdown menu is open, showing three options: 'Hayes of Milwaukee, Wisconsin (6)', 'Keohane of Carhoogarriff (3)', and 'Keohane? (4)'. Below the filters, a match card for 'L Holland' is shown. The card includes a profile picture, the name 'L Holland', the relationship 'Brother', and DNA statistics: '2,615 cM | 46% - 53% shared DNA Both sides'. There is also a 'No Trees' icon. A note below the card says 'Brother.'. The 'Groups' dropdown is positioned over the match card, and the 'Apply' button is visible.

Interpreting Your Results

Working with Your Matches

- Start by sorting into your 4 grandparent lines. For example, see the Leeds Method.
- Write Notes.
- At Ancestry & MyHeritage use the colored dot groups and labels.
- Work back to older generations.

What is the Leeds Method?

- Method devised by genetic genealogist Dana Stewart Leeds
- Involves visually clustering 2nd-3rd cousin matches to identify the great-grandparents' lines
- The shared matches are reviewed from this list and assigned a color in a spreadsheet

Leads Method

	A	B	C	D	E	F	G	H	I	J	K
J.D.		Maternal									
A.S.			Paternal								
J.M.				Paternal							
H.S.					Maternal						
DNA Match 1				Paternal		Paternal					
P.R.		Maternal			Maternal						
J.F.				Paternal		Paternal					
C.K.				Paternal							
C.G.		Maternal			Maternal						Maternal
V.D.		Maternal									
J.Y.				Paternal		Paternal					
DNA Match 2			Paternal								
G.L.					Maternal						
J.S.			Paternal								
M.N.				Paternal		Paternal					
DNA Match 3			Paternal								
S.C.					Maternal						
DNA Match 4			Paternal								
K.D.			Paternal								
H.B.				Paternal		Paternal					
DNA Match 5					Maternal						
D.K.						Paternal					
L.G.						Paternal					
S.S.				Paternal		Paternal					
H.L.			Paternal								

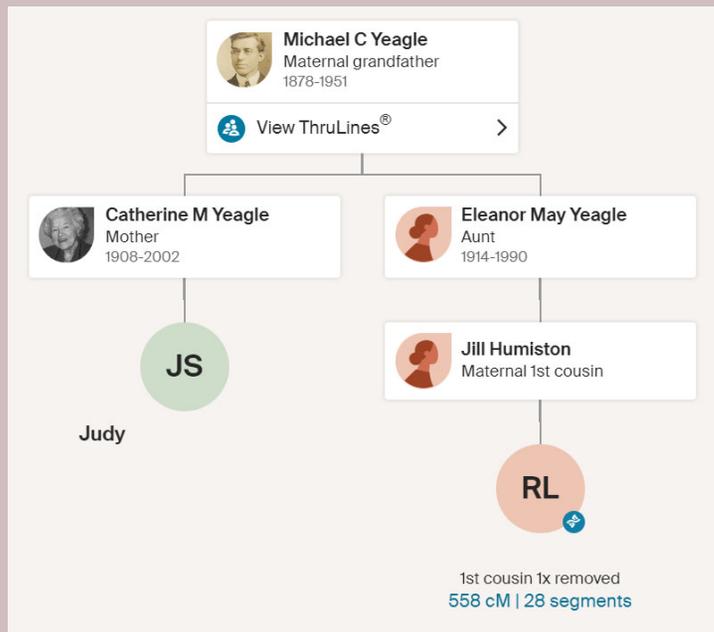
- Maternal
- Paternal
- Paternal
- Maternal
- Paternal

Identifying a Match

- Family member you recognize
- Information in their trees
- Shared surnames
- Common locations
- Paternal/Maternal or Parent1/Parent2 side

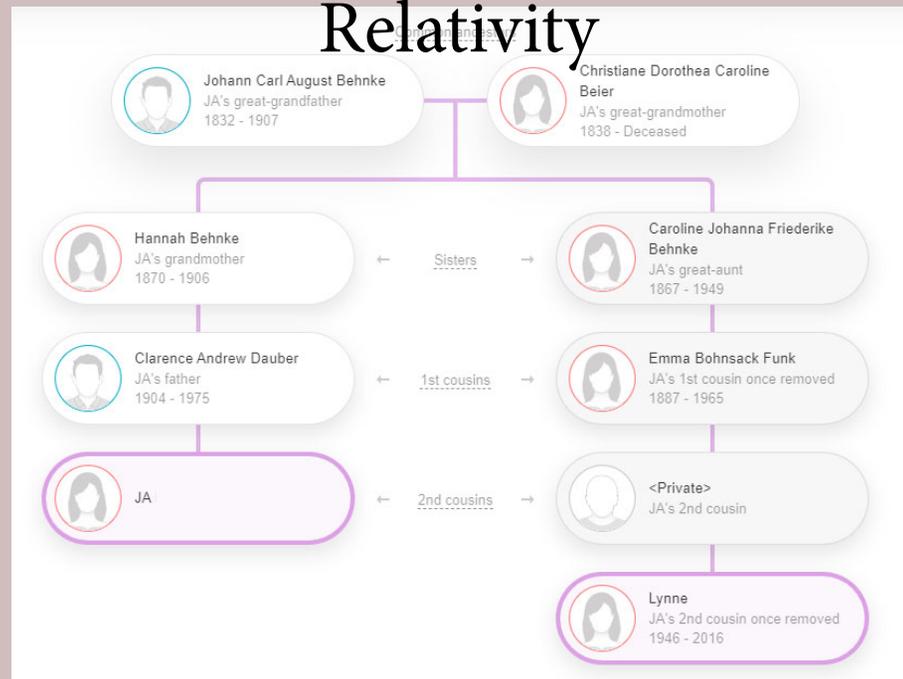
Ancestor Hints

Ancestry Common Ancestor



MyHeritage Theory of Family

Relativity

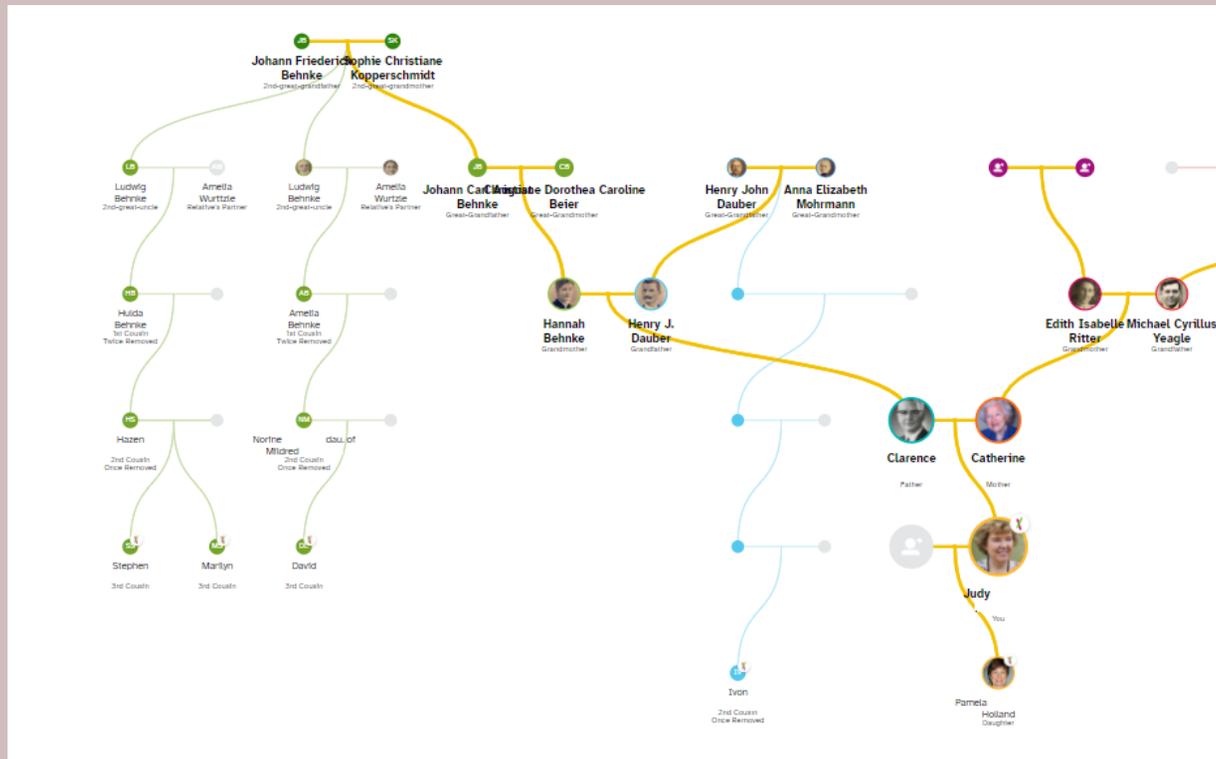


Other Ways to Identify a Match

- Build out a match's tree
- Look at Shared Matches
 - Maybe you already identified how you are related to a shared match
 - Evaluate carefully
 - Triangulate results: matching DNA segments between at least 3 people from different families

Other Company Tools

- 23andMe – Family Tree



Identifying a Match Without Contact

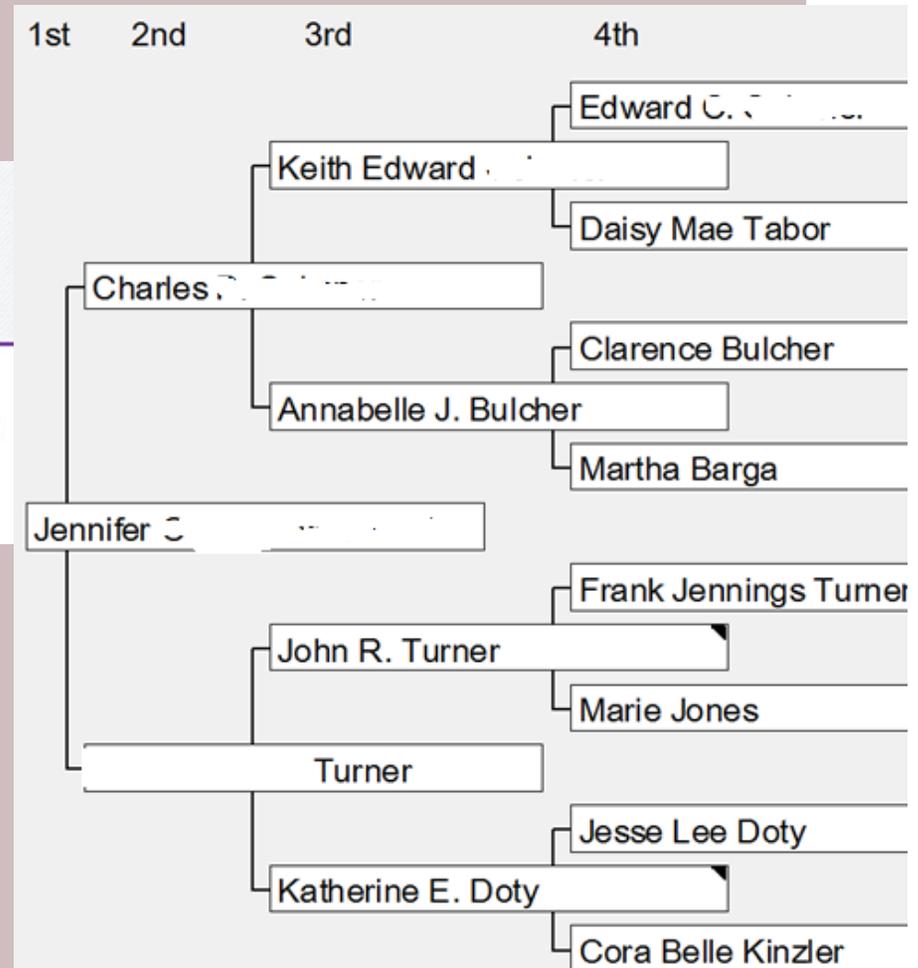
- Do they use their username in other mediums
- Various online searches and directories
- If you later do have contact, consider how much information to share

No Response? No Problem

Jennifer [redacted] has **15 surnames**

This can help you navigate who in your family both of you are related to.

Bulcher, Doty, Kinzler, Turner, Tabor, Poly,
Biles, Sturm, Hodge, Taber, Winans, Koon, Steiger,
Bramhall



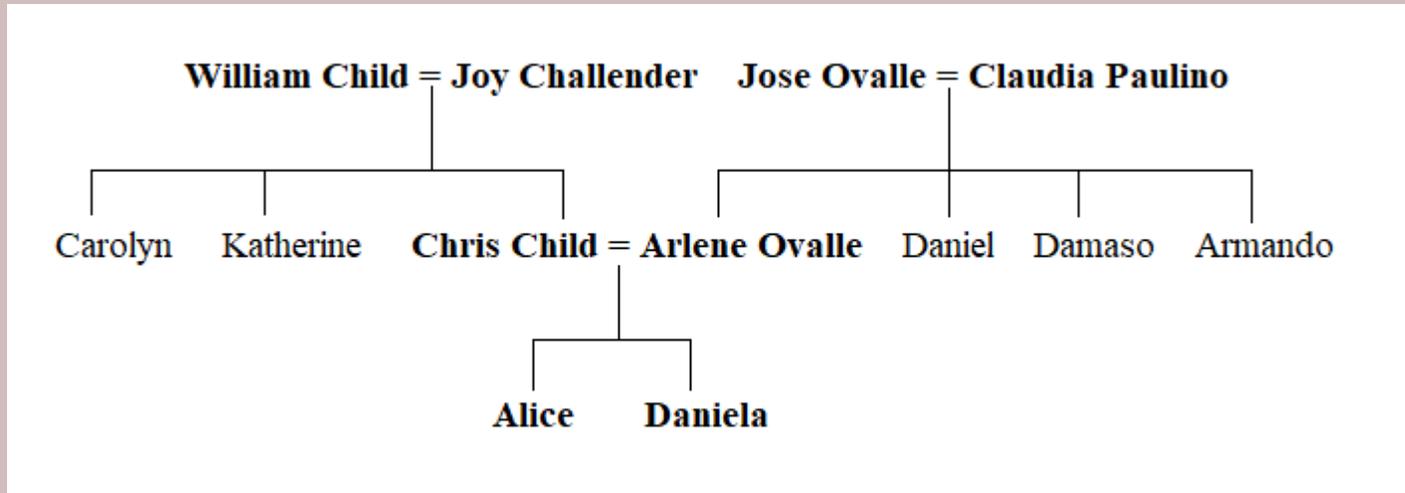
Tip
The trees of your
matches may not be
accurate

Finding Test Takers

Finding more matches

- Test close relatives and different branches of your family tree – the older the better
- Test at multiple companies to find the most matches

Who Has Tested / Who Hasn't



Finding Other Participants

- You need to compare your results to other individuals to confirm or reject a hypothesis
- Their DNA may hold valuable clues for your existing theories
- Your DNA may be “useless” for your project or theory

Tip

Complete a Tree of Living Descendants

Reverse Genealogy

- Use vital records and census research up until 1950
- Look for obituaries with children and more current addresses
- Use online resources such as telephone, property, and voter records
- Facebook and social media can be your friend!

Finding the “Ideal” DNA Participant

- Complete your living tree and identify the best possible descendants
- Find two independent lines that can help with your research
- Try to have back up candidates too
- Caution them about unexpected results

Appropriate Approaches to Requesting a Stranger's DNA

- Consider what you're asking of people – it could be a sensitive topic
- Carefully explain why you need their participation and provide as much information as you can
- Be truthful and honest with your intentions
- Offer to pay for their test
- Share your genealogical information

The Best Methods of Communication

- Facebook or Social Media
- Email
- Phone
- Physical address
- Contacting someone via their own online tree
- Queries in print/online

Informed Consent Agreements

- Help ensure that the tester is aware of what may come up in their DNA results
- Allows tester to specify how they want to receive their DNA results and/or permit data to be uploaded elsewhere
- Genetic genealogist Blaine Bettinger prepared forms available under Creative Commons license.
- This is NOT a legally binding form

Informed Consent Agreement Sample



Sample_Informed_Consent_Agreement DOCX

File Edit View Help

1 of 1



Copy link

Page 1 of 1



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Informed Consent Agreement

Thank you! You've agreed to provide a DNA sample to a genetic genealogy testing company. After you mail out your DNA sample (either a cheek swab or a saliva collection), the company will analyze some of your DNA and will provide your admixture estimates ("ethnicity") and a list of your genetic matches in the database. Your matches will be able to see you as one of their matches.

I will provide you with access to your test results and will answer any questions you may have about your results. You may, at any time now or in the future, ask me to remove your DNA test results from the company database, to the extent possible.

If you'd like to keep your test results as private as possible (understanding that DNA is ultimately identifiable even when anonymous), upon request I can use an unidentifiable pseudonym and will not associate the results with an identifiable email address.

Please check ONLY one of the following options:

- I DO want to be able to access my DNA test results;
- I do NOT want to be able to access my DNA test results; OR
- I DO want a summary of my DNA test results.

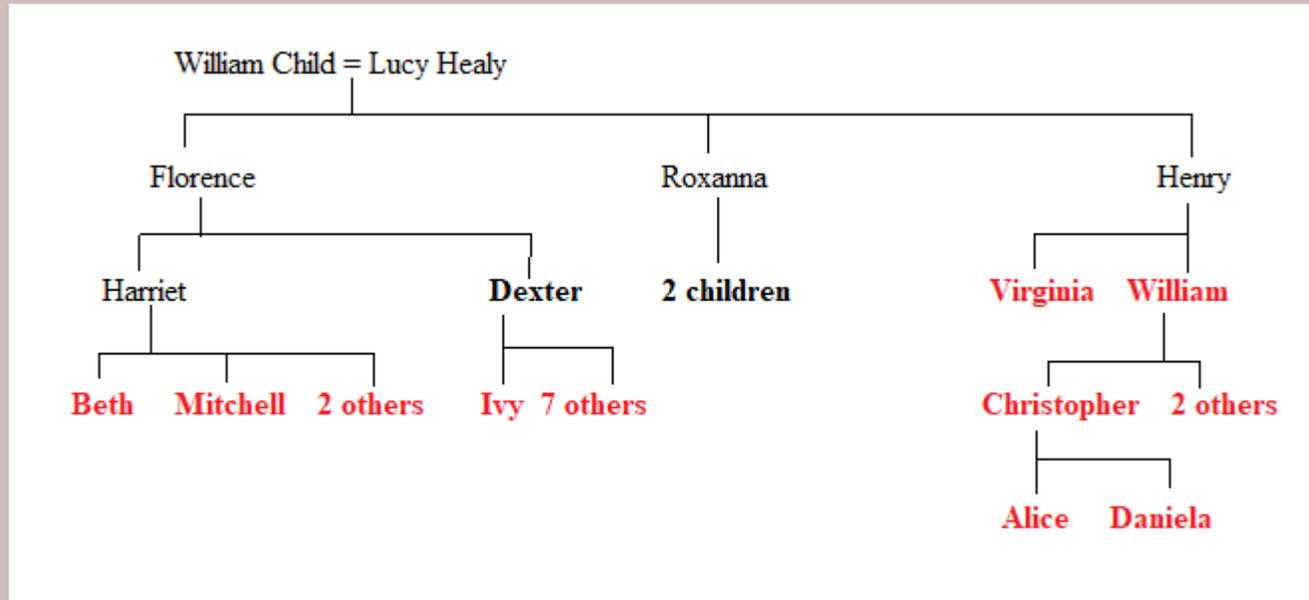
Please check ONLY one of the following options:

- I DO want to assign an unidentifiable pseudonym to my DNA results; OR
- I DO want to use my real name with my DNA results.

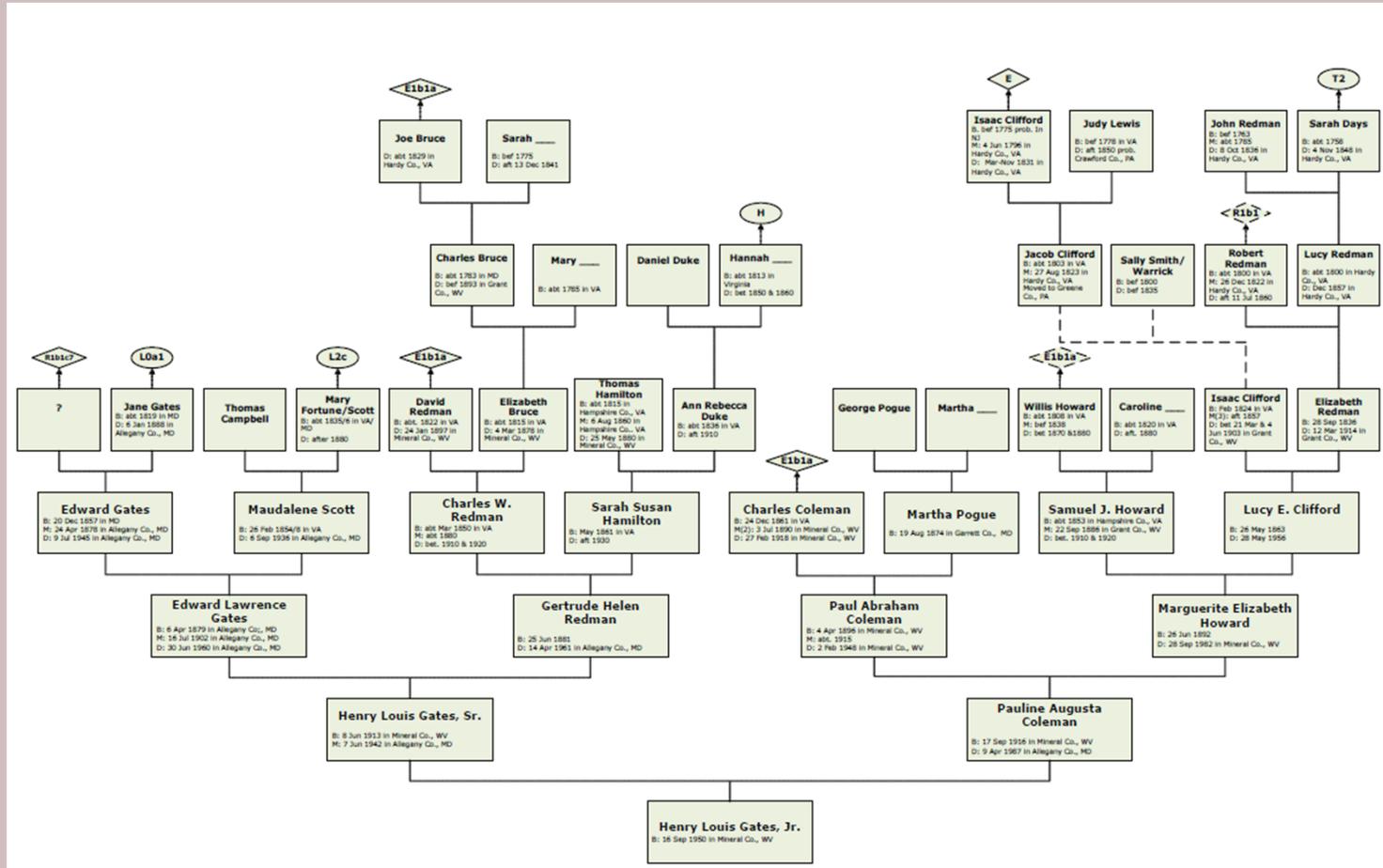
Goal

- Getting the most senior generation at any given point that descends from your deceased ancestor. Siblings, cousins, etc. will have different inherited DNA from these ancestors.

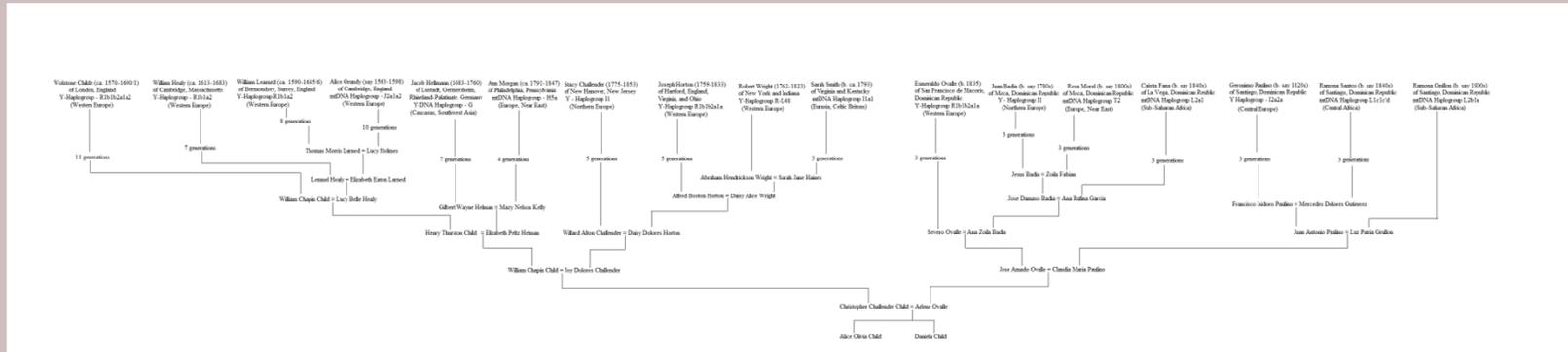
Who Else Could Be Helpful, Who Would Not Be



Usefulness of mtDNA / Y Map



My Own Y DNA / mtDNA Map



Do You Even Need Them?

Maternal Haplogroup

Maternal haplogroups identify unbroken lines of women that all trace back to the same ancient common ancestor.

You

L2b1a

[See full report](#)

Morgan

L1c1d

[See full report](#)

Because your haplogroups do not match, you are most likely not recently related through a direct line of female ancestors.

Paternal Haplogroup

Paternal haplogroups identify ancient lines of men that all trace back to the same common ancestor.

You

Not available

Morgan

R-L51

[See full report](#)

Although women inherit roughly 50% of their DNA from their fathers, they do not inherit Y chromosomes and, as a result, do not have paternal haplogroups.

Asking Your Own Relatives

- You may discover a recent surprise



Chasing the Y

Parent/Child			
	Christopher Child Son Both sides 3,482 cM 50% shared DNA	Public linked tree 132 people Common ancestor	+ Add ...
Close Family			
	Daniela Child Niece Both sides 1,598 cM 23% shared DNA	Public linked tree 132 people Common ancestor	+ Add ...
	Alice Child Niece Both sides 1,532 cM 22% shared DNA	Public linked tree 132 people Common ancestor	+ Add ...
	D.D. 1st cousin 1x removed or half granduncle Parent 1's side 491 cM 7% shared DNA	Public linked tree 924 people Common ancestor	+ Add ...
	horton 1st cousin 1x removed Parent 1's side 376 cM 5% shared DNA	No trees	+ Add ...
Extended Family			
	2nd cousin Parent 2's side 325 cM 5% shared DNA	Public linked tree 20 people Common ancestor	+ Add ...
	wright 2nd cousin or half 1st cousin 1x removed Parent 1's side 309 cM 4% shared DNA	Private linked tree 9 people Common ancestor	+ Add ...

Reaching Out to People That Have Already Taken One DNA Test

Common Ancestors

According to Ancestry member trees, these are the common ancestors that connect Joy Challender and Jackwright. View a common ancestor to see the relationship path that connects them.

Joy Challender and Jackwright could be 2nd cousin through:



Abraham Hendrickson Wright
Great-grandfather

1848-1923

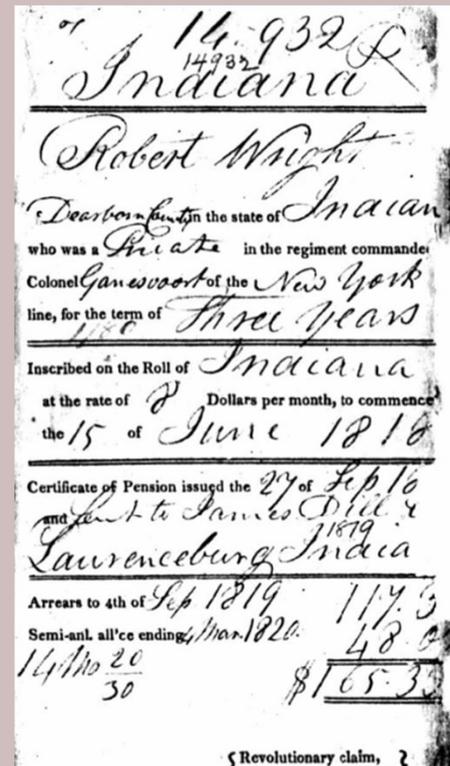
[View Relationship](#)



Sarah Jane Haines
Great-grandmother

1854-1926

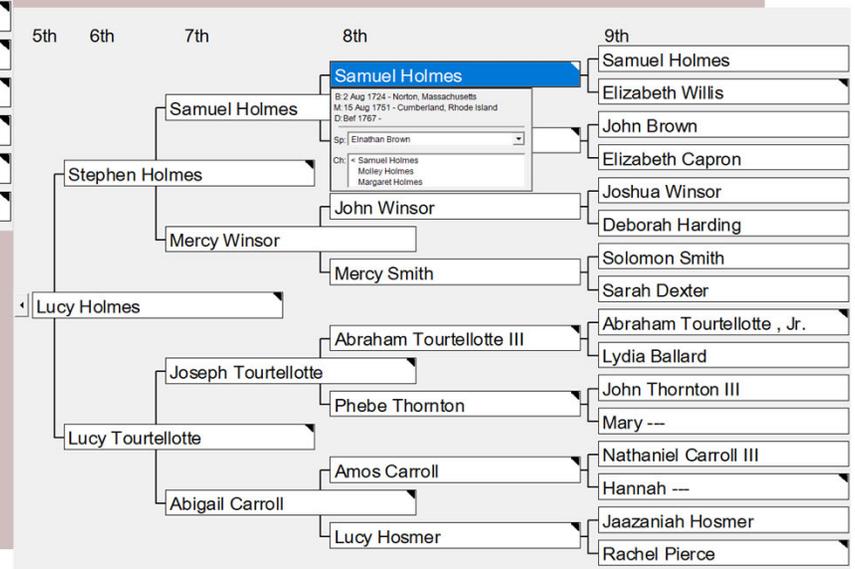
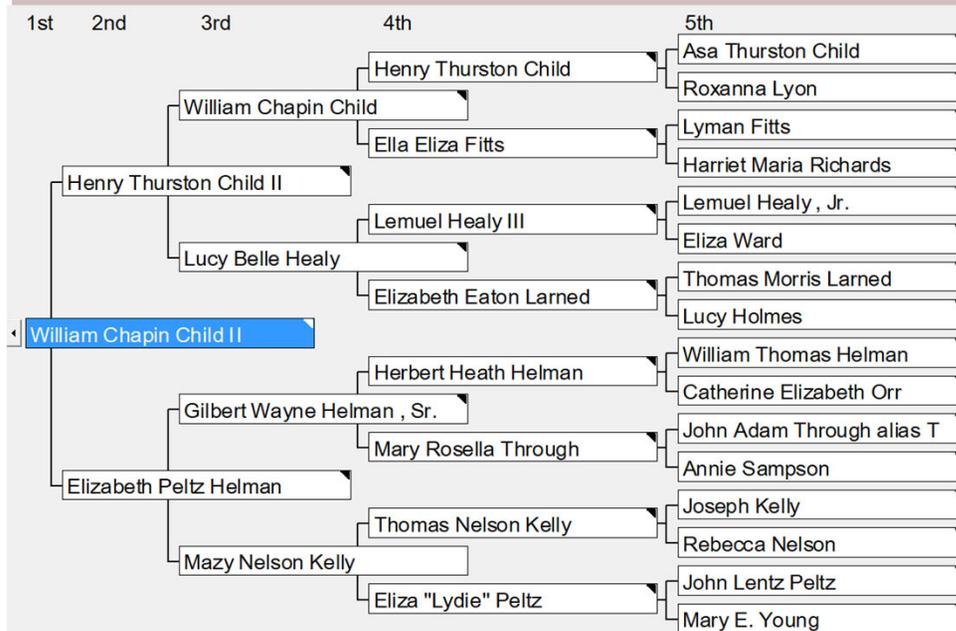
[View Relationship](#)



Still No Solution

Match	Markers Tested	Genetic Distance	Big Y STR Differences	Y Haplogroup	Paternal Country of Origin	Paternal Earliest Known Ancestor	Match date
Y-DNA67	1 to 67	1 step Link on Family Tree	Not Available	R-M269	Canada	Franklin George Wright b.1882...	April 03 2017
Y-DNA67	1 to 67	1 step Link on Family Tree	Not Available	R-M269	England	Peter Wright (1740-1821) b.NY d.V...	April 03 2017
FAMILY FINDER Y-DNA111	1 to 111	1 step Link on Family Tree	Not Available	R-BY78427	Canada	Amos Wright (1826-1894) b.Cana...	December 27 2023

Who Has the Right Cousins?



Different Levels Between the Same Generation

View tree linked to William Child's matches	Link tree to Virginia Child's matches	View tree linked to Dexter Young's matches																								
<p>Distant Family</p> <table border="1"> <tr> <td> B Holmes</td> <td>4th cousin or half 3rd cousin 1x removed Parent 2's side 15 cM < 1% shared DNA</td> </tr> <tr> <td> R Holmes</td> <td>4th cousin or half 3rd cousin 1x removed Unassigned 15 cM < 1% shared DNA</td> </tr> <tr> <td> J Holmes</td> <td>4th cousin or half 3rd cousin 1x removed Parent 2's side 14 cM < 1% shared DNA</td> </tr> <tr> <td> A Holmes</td> <td>Half 3rd cousin 1x removed or 4th cousin Parent 1's side 13 cM < 1% shared DNA</td> </tr> </table>	 B Holmes	4th cousin or half 3rd cousin 1x removed Parent 2's side 15 cM < 1% shared DNA	 R Holmes	4th cousin or half 3rd cousin 1x removed Unassigned 15 cM < 1% shared DNA	 J Holmes	4th cousin or half 3rd cousin 1x removed Parent 2's side 14 cM < 1% shared DNA	 A Holmes	Half 3rd cousin 1x removed or 4th cousin Parent 1's side 13 cM < 1% shared DNA	<p>Distant Family</p> <table border="1"> <tr> <td> K Holmes</td> <td>3rd cousin 2x removed or half 3rd cousin 1x removed Parent 2's side 22 cM < 1% shared DNA</td> </tr> <tr> <td> J Holmes</td> <td>3rd cousin 2x removed or half 2nd cousin 3x removed Parent 1's side 22 cM < 1% shared DNA</td> </tr> <tr> <td> G Holmes</td> <td>3rd cousin 2x removed or half 2nd cousin 3x removed Parent 2's side 18 cM < 1% shared DNA</td> </tr> <tr> <td> B Holmes</td> <td>Half 3rd cousin 1x removed or 4th cousin Parent 1's side 17 cM < 1% shared DNA</td> </tr> </table>	 K Holmes	3rd cousin 2x removed or half 3rd cousin 1x removed Parent 2's side 22 cM < 1% shared DNA	 J Holmes	3rd cousin 2x removed or half 2nd cousin 3x removed Parent 1's side 22 cM < 1% shared DNA	 G Holmes	3rd cousin 2x removed or half 2nd cousin 3x removed Parent 2's side 18 cM < 1% shared DNA	 B Holmes	Half 3rd cousin 1x removed or 4th cousin Parent 1's side 17 cM < 1% shared DNA	<p>Distant Family</p> <table border="1"> <tr> <td> B Holmes</td> <td>3rd cousin 1x removed or half 2nd cousin 2x removed Parent 2's side 58 cM < 1% shared DNA</td> </tr> <tr> <td> m holmes</td> <td>Half 3rd cousin 1x removed or 3rd cousin 2x removed Parent 1's side 24 cM < 1% shared DNA</td> </tr> <tr> <td> G Holmes</td> <td>3rd cousin 2x removed or half 3rd cousin 1x removed Parent 1's side 21 cM < 1% shared DNA</td> </tr> <tr> <td> N Holmes</td> <td>3rd cousin 2x removed or half 2nd cousin 3x removed Parent 1's side 19 cM < 1% shared DNA</td> </tr> </table>	 B Holmes	3rd cousin 1x removed or half 2nd cousin 2x removed Parent 2's side 58 cM < 1% shared DNA	 m holmes	Half 3rd cousin 1x removed or 3rd cousin 2x removed Parent 1's side 24 cM < 1% shared DNA	 G Holmes	3rd cousin 2x removed or half 3rd cousin 1x removed Parent 1's side 21 cM < 1% shared DNA	 N Holmes	3rd cousin 2x removed or half 2nd cousin 3x removed Parent 1's side 19 cM < 1% shared DNA
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 N Holmes	3rd cousin 2x removed or half 2nd cousin 3x removed Parent 1's side 19 cM < 1% shared DNA																									

Matches to Holmes Men Elsewhere in America, Some with Proven English Origins

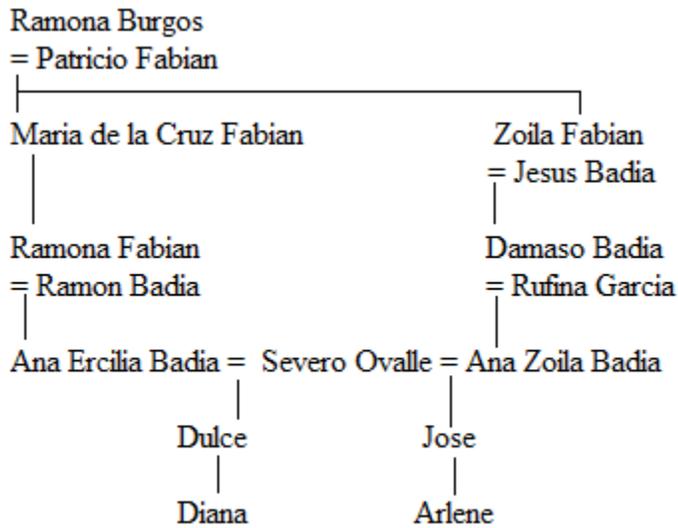
 Benjamin Holmes AUTOSOMAL TRANSFER BIG Y-700 Y-DNA37	  				
Markers Tested 1 to 700	Genetic Distance 5 steps Link on Family Tree	Big Y STR Differences Not Available	Y Haplogroup R-FT14784	Paternal Country of Origin  England	Paternal Earliest Known Ancestor George Brunswick Holmes, b. 181...
Match date: December 07 2018					
 Mr. Douglas W. Holmes FAMILY FINDER MTFULL SEQUENCE BIG Y-700 BIG Y-500	  				
Markers Tested 1 to 700	Genetic Distance 5 steps Link on Family Tree	Big Y STR Differences Not Available	Y Haplogroup R-FT14784	Paternal Country of Origin  England	Paternal Earliest Known Ancestor Thomas Holmes, b. Jun...
Match date: June 15 2018					
 Mr. Gordon Houston Holmes AUTOSOMAL TRANSFER MTFULL SEQUENCE BIG Y-700 Y-DNA111	  				
Markers Tested 1 to 700	Genetic Distance 5 steps Link on Family Tree	Big Y STR Differences Not Available	Y Haplogroup R-FT14784	Paternal Country of Origin  United States	Paternal Earliest Known Ancestor Walter Holmes
Match date: June 15 2018					

Other Places to Look

The screenshot displays the homepage of the Guild of One-Name Studies. At the top left is the logo with the text "Guild of One-Name Studies". To the right, a search bar is titled "Is your surname here?" and contains the text "Surname search..." and a "Search" button. Further right, statistics are listed: "2,248 members", "2,146 studies", and "7,621 surnames". Below the search bar, there are two main content areas. On the left, a blue banner reads "SEMINAR BOOKING NOW OPEN" followed by text about a seminar on 8 March 2025 in Amersham, England, and a link "Go to Cornucopia Seminar". On the right, there are two blue buttons: "ABOUT THE GUILD" and "HOW TO JOIN US". Below these is a "Find Out More" section featuring a video player with the Guild logo and a play button, and a row of diverse cartoon avatars.

Tip
Participating now may
be key to a problem
not on your radar.

Chasing the mt



Haplogroup T YOUR HAPLOGROUP

The mitochondrial haplogroup T is best characterized as a European lineage. With an origin in the Near East greater than 45,000 years ago, the major sub-lineages of haplogroup T entered Europe around the time of the Neolithic 10,000 years ago. Once in Europe, these sub-lineages underwent a dramatic expansion associated with the arrival of agriculture in Europe. Haplogroup T2 is one of the older sub-lineages and may have been present in Europe as early as the Late Upper Palaeolithic.

You can also [view other haplogroups here](#).

Tip
Remember where your
trees are!

Understanding CentiMorgans

What is a CentiMorgan

$$\begin{aligned} P(\text{recombination}|\text{linkage of } d \text{ cM}) &= \sum_{k=0}^{\infty} P(2k + 1 \text{ crossovers}|\text{linkage of } d \text{ cM}) \\ &= \sum_{k=0}^{\infty} e^{-d/100} \frac{(d/100)^{2k+1}}{(2k+1)!} = e^{-d/100} \sinh(d/100) = \frac{1 - e^{-2d/100}}{2}, \end{aligned}$$

- A unit for measuring genetic linkage

Shared cM Project

- Project of Blaine Bettinger, the Genetic Genealogist
- Understanding averages over time of shared centiMorgans between different levels of kinship
- Data on the International Society of Genetic Genealogists Website (ISOGG)

The Shared cM Project – Version 4.0 (March 2020)

Blaine T. Bettinger
www.TheGeneticGenealogist.com
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How to read this chart:

Aunt/Uncle	Relationship
1741	Average
1201 - 2282	Range (min-max)

								Great-Great-Grandparent	GGG-Aunt/Uncle		
HalfGG-Aunt/Uncle 208 103 - 284	Great-Grandparent 887 485 - 1486						Great-Great Aunt/Uncle 420 186 - 713	1C3R 117 25 - 238	2c3R 51 0 - 154		Other Relationships
Half 1C2R 125 16 - 269	Half Great-Aunt/Uncle 431 184 - 668	Grandparent 1754 984 - 2462				Great Aunt/Uncle 850 330 - 1467	1C2R 221 33 - 471	2c2R 71 0 - 244	3C2R 36 0 - 166		6C 18 0 - 71
Half 2c1R 66 0 - 190	Half 1C1R 224 62 - 469	Half Aunt/Uncle 871 492 - 1315	Parent 3485 2376 - 3720		Aunt/Uncle 1741 1201 - 2282	1C1R 433 102 - 980	2c1R 122 14 - 353	3C1R 48 0 - 192	4C1R 28 0 - 126		6C1R 15 0 - 56
Half 3c 48 0 - 168	Half 2c 120 10 - 325	Half 1C 449 156 - 979	Half-Sibling 1759 1160 - 2436	Sibling 2613 1613 - 3488	SELF	1C 866 396 - 1397	2c 229 41 - 592	3c 73 0 - 234	4c 35 0 - 139	5c 25 0 - 117	6C2R 13 0 - 45
Half 3c1R 37 0 - 139	Half 2c1R 66 0 - 190	Half 1C1R 224 62 - 469	Half Niece/Nephew 871 492 - 1315	Niece/Nephew 1740 1201 - 2282	Child 3487 2376 - 3720	1C1R 433 102 - 980	2c1R 122 14 - 353	3C1R 48 0 - 192	4C1R 28 0 - 126	5C1R 21 0 - 80	7C 14 0 - 57
Half 3c2R 27 0 - 78	Half 2c2R 48 0 - 144	Half 1C2R 125 16 - 269	Half Great Niece/Nephew 431 184 - 668	Great-Niece/Nephew 850 330 - 1467	Grandchild 1754 984 - 2462	1C2R 221 33 - 471	2c2R 71 0 - 244	3C2R 36 0 - 166	4C2R 22 0 - 93	5C2R 18 0 - 65	7C1R 12 0 - 50
Half 3c3R	Half 2c3R	Half 1C3R 60 0 - 120	Half GG Niece/Nephew 208 103 - 284	Great-Great-Niece/Nephew 420 186 - 713	Great-Grandchild 887 485 - 1486	1C3R 117 25 - 238	2c3R 51 0 - 154	3C3R 27 0 - 98	4C3R 19 0 - 60	5C3R 13 0 - 30	8C 11 0 - 42

Minimum was automatically set to 0 cM for relationships more distant than Half 2C, and averages were determined only for submissions in which DNA was shared

Tip
Shared cMs alone are
not proof of a specific
kinship

How Results May Appear By Company

Parent/Child			
 Christopher Child	Son Both sides 3,482 cM 50% shared DNA	Public linked tree 132 people Common ancestor	+ Add ...
Close Family			
 Daniela Child	Niece Both sides 1,598 cM 23% shared DNA	Public linked tree 132 people Common ancestor	+ Add ...
 Alice Child	Niece Both sides 1,532 cM 22% shared DNA	Public linked tree 132 people Common ancestor	+ Add ...
 D.D.	1st cousin 1x removed or half granduncle Parent 1's side 491 cM 7% shared DNA	Public linked tree 924 people Common ancestor	+ Add ...
 horton	1st cousin 1x removed Parent 1's side 376 cM 5% shared DNA	No trees	+ Add ...
Extended Family			
 2nd cousin	2nd cousin Parent 2's side 325 cM 5% shared DNA	Public linked tree 20 people Common ancestor	+ Add ...
 wright	2nd cousin or half 1st cousin 1x removed Parent 1's side 309 cM 4% shared DNA	Private linked tree 9 people Common ancestor	+ Add ...

23andme

☆		Chris Child	Son 49.95% DNA shared, 24 segments Connected
☆		Paul Challender	Brother 48.38% DNA shared, 47 segments Connected
☆		Daniela Child	Granddaughter 23.94% DNA shared, 26 segments Connected
☆		Vernon Horton	1st Cousin 11.55% DNA shared, 31 segments Connected

MyHeritage

Review DNA Match



Joy Child (born Challender)
 Mother
 Age: 70's
 Appears in your tree



Daniela Child
 Daughter
 Age: 20 or below
 DNA managed by you

Probable relationship

Granddaughter

DNA Match quality

22.5% (1,597.9 cM) **25** **167.3 cM**
Shared DNA Shared segments Largest segment

Possible relationships

The table below shows how Daniela Child might be related to Joy Child (born Challender):

Relationship	Probability	Most Recent Common Ancestor(s)
Granddaughter	96.8% <div style="width: 96.8%; height: 10px; background-color: #8e44ad;"></div>	Joy Child (born Challender)
Niece	3.2% <div style="width: 3.2%; height: 10px; background-color: #8e44ad;"></div>	Parents

[Show more relationships plus diagram](#)

FamilyTreeDNA

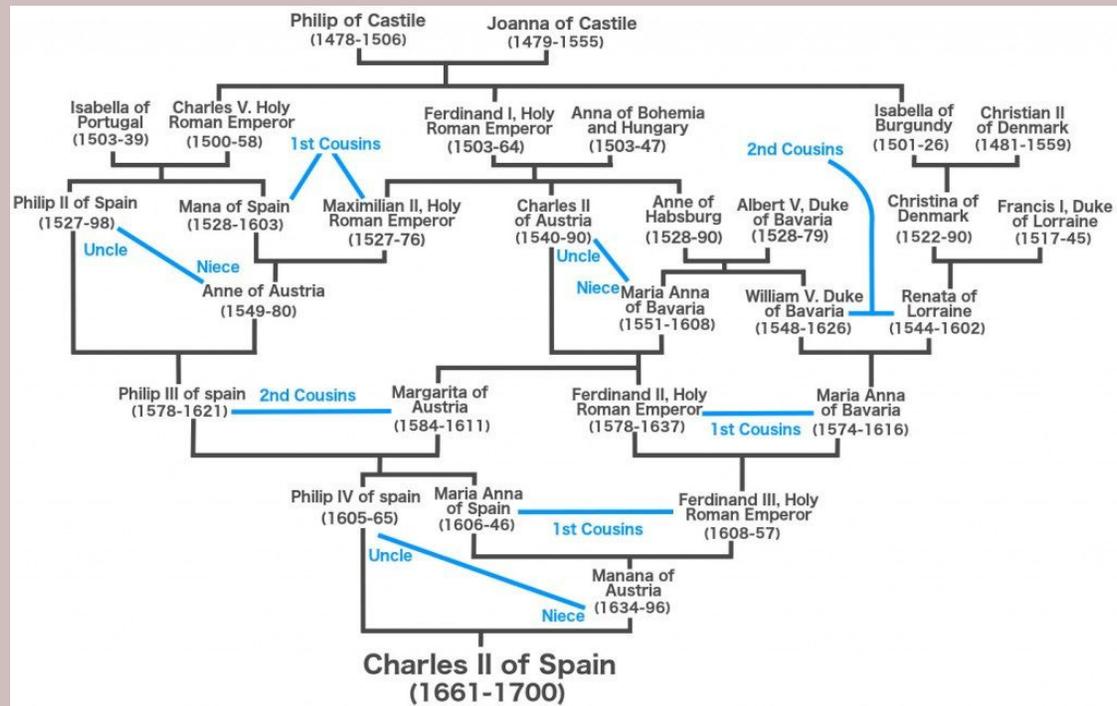
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="display: flex; align-items: center;"> <input type="checkbox"/> <div> <p>Chris Child</p> <p style="font-size: small; background-color: #f0f0f0; padding: 2px;">AUTOSOMAL TRANSFER</p> </div> </div> <div style="text-align: right;"> NEW </div> </div>					
Ancestral Surnames	Haplogroup	Relationship Range	Shared DNA	Longest Block	X Match
Not Provided	Y-DNA: ● N/A mtDNA: ● N/A	Parent/Child Link on Family Tree	3555 cM	284 cM	181 cM
					Match date: May 10 2021
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="display: flex; align-items: center;"> <input type="checkbox"/> <div> <p>Daniela Child</p> <p style="font-size: small; background-color: #f0f0f0; padding: 2px;">AUTOSOMAL TRANSFER</p> </div> </div> <div style="text-align: right;"> NEW </div> </div>					
Ancestral Surnames	Haplogroup	Relationship Range	Shared DNA	Longest Block	X Match
Not Provided	mtDNA: ● N/A	Half Sibling, Uncle/Aunt/Niece/Nephe... Link on Family Tree	1655 cM	172 cM	181 cM
					Match date: May 10 2021
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="display: flex; align-items: center;"> <input type="checkbox"/> <div> <p>Alice Child</p> <p style="font-size: small; background-color: #f0f0f0; padding: 2px;">AUTOSOMAL TRANSFER</p> </div> </div> <div style="text-align: right;"> NEW </div> </div>					
Ancestral Surnames	Haplogroup	Relationship Range	Shared DNA	Longest Block	X Match
Not Provided	mtDNA: ● N/A	Half Sibling, Uncle/Aunt/Niece/Nephe... Link on Family Tree	1622 cM	167 cM	98 cM
					Match date: May 10 2021

Tip
Endogamy will often
skew these results.

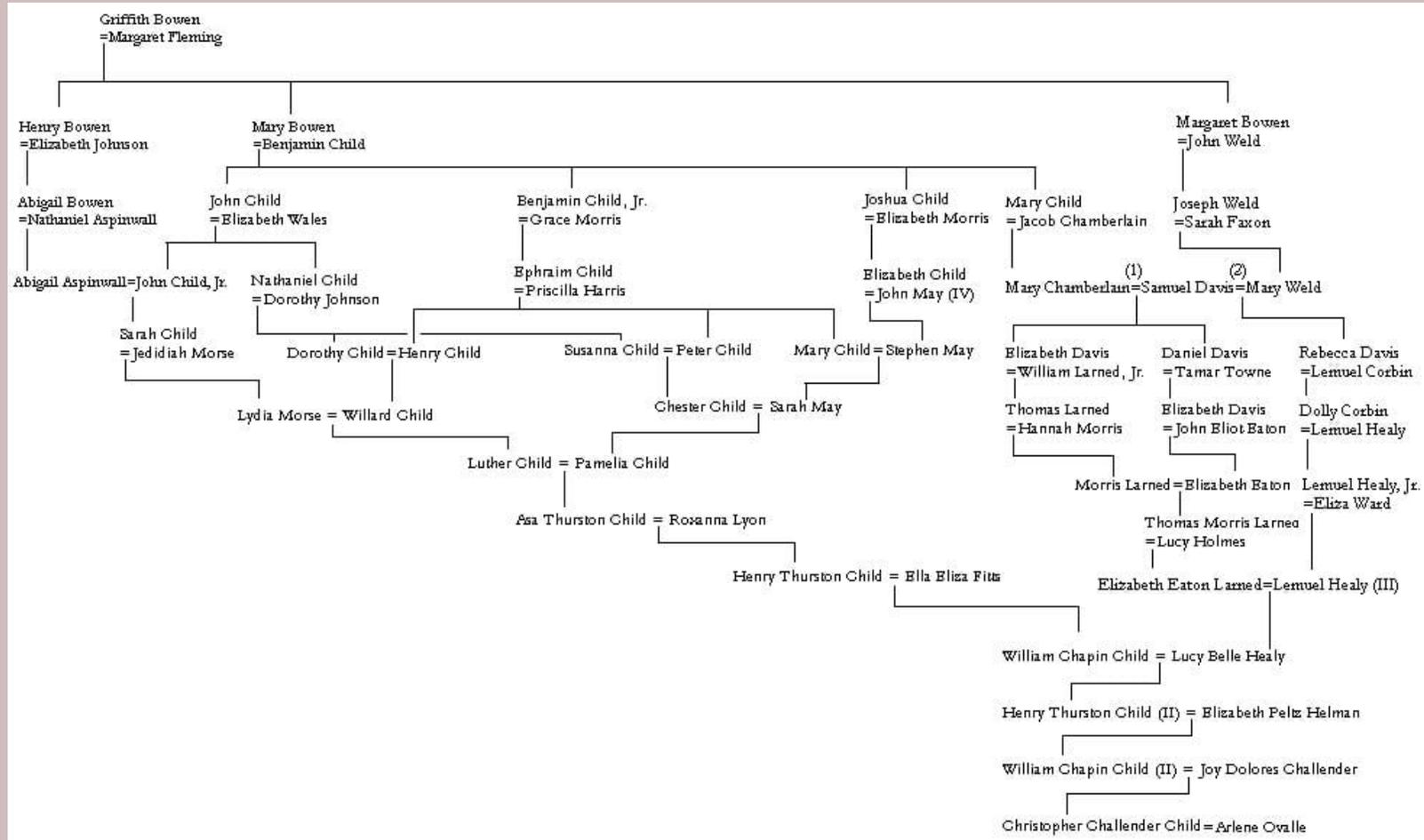
Endogamy

- The custom of marrying only within the limits of a local community, clan, or tribe
- In genealogical custom, this tends to regard families that married their cousins over several generations, resulting in higher than predicted levels of shared DNA due to multiple kinships.

Endogamous Ancestry (Extreme)

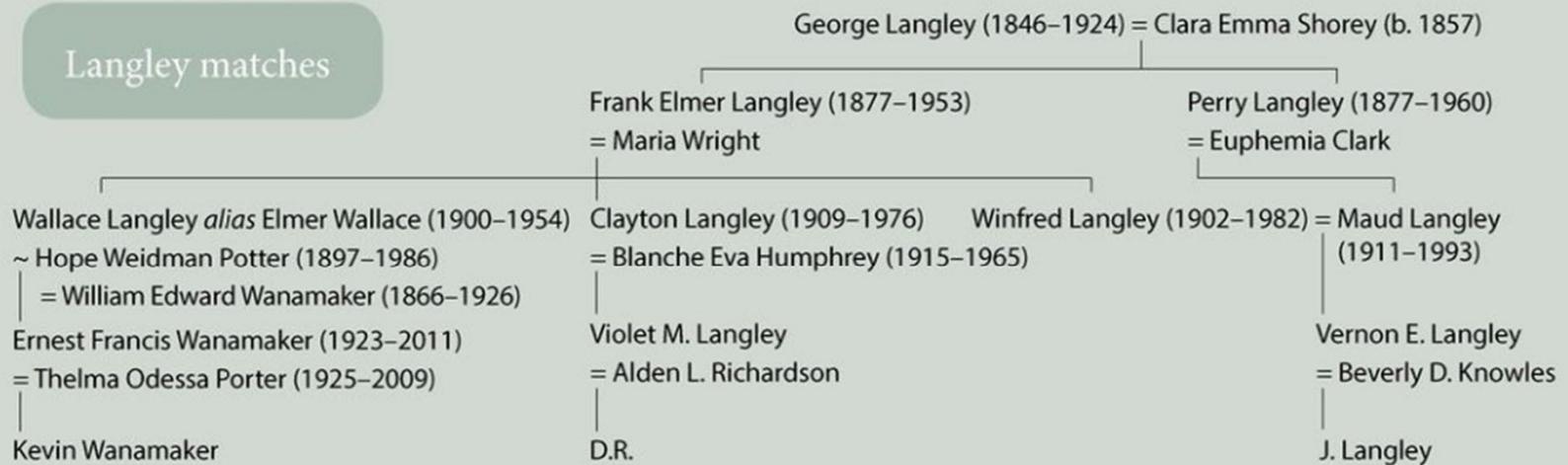


One Quarter "Endogamous"



See How Matches Compare with the “Less Endogamous”

Langley matches



Kevin and J. are predicted to be first to second cousins (378 cM along 15 segments).
 Kevin and D.R. are predicted to be second to third cousins (265 cM along 13 segments).

A Very Close Match Yet No Common Ancestors Until the 18th Century

**Francisco
Gonzalez**

Age: 70's

DNA managed by Francisco
Gonzalez

[Contact Francisco](#)

Estimated relationships

1st cousin once removed - 2nd
cousin once removed ?

DNA Match quality ?

Shared DNA: 2.4% (171.0 cM)

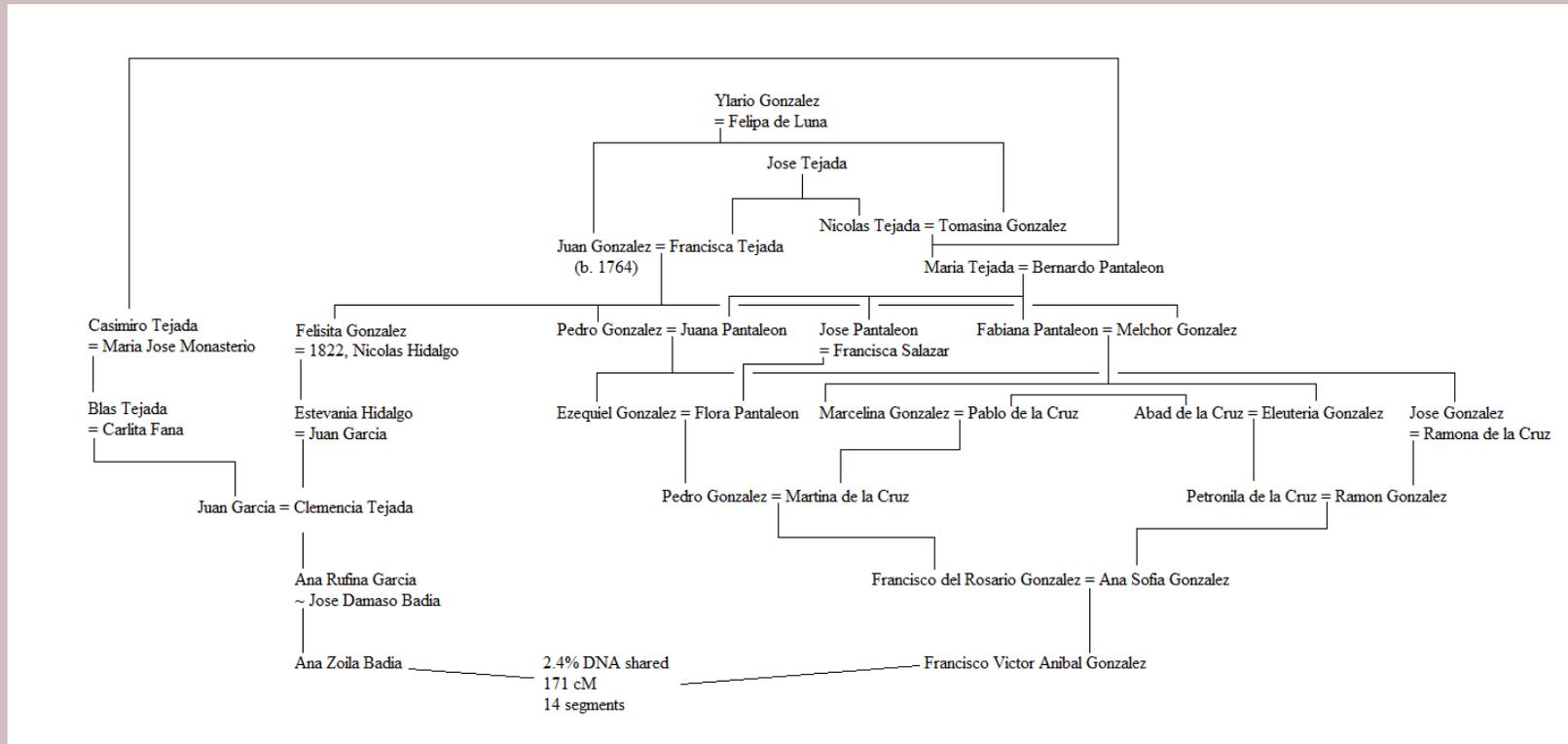
Shared segments: 14

Largest segment: 21 cM



Appears in a family tree with 5,669 people, managed by Francisco Gonzalez from Dominican Republic

How Many Times Related?



Tejada / Gonzalez Descents

- Two Tejada siblings marry two Gonzalez siblings
- Zoila descends from both couples due to her grandparents (married in 1885) being third cousins
- Francisco descends from one couple 4 times, and the other 5 times.
- 18 unique ways they are 4th cousins or 4th cousins once removed

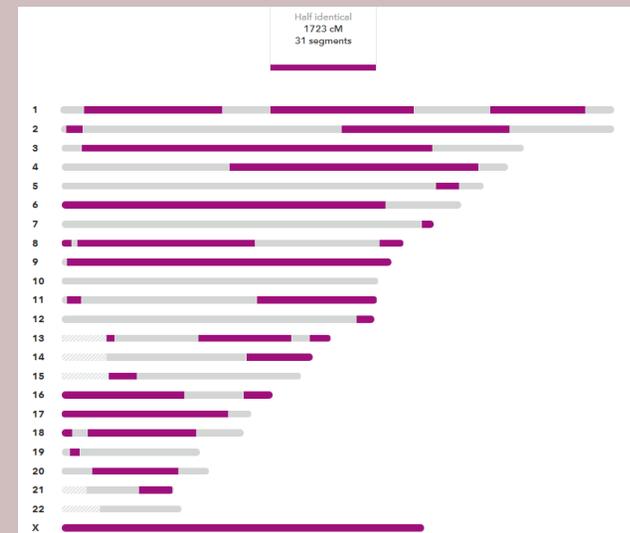
Tip
Always Consider a
“Half-Kinship”

Siblings Versus Half-Siblings

- Full siblings average 2613 cM (50%), ranging from 1613 to 3488
- Half siblings average 1759 cM (25%), ranging from 1160 to 2436
- Individuals between 1613 and 2436 (21 to 32%) are “within the overlap” of sibling versus half sibling

Other Considerations

- Maternal half siblings will share the same mtDNA
- Paternal half brothers will share the same Y-DNA
- Paternal half-sisters will have the same side of one part of their x DNA



First Cousins Versus Half-First Cousins

- First cousins average 866 cM (12.5%), ranging from 396 to 1397
- Half first cousins average 449 cM (6.25%), ranging from 156 to 979
- Individuals between 396 to 979 are “within the overlap” over first cousins versus half first cousins

Smaller Overlaps

- Half siblings average 1759 cM (25%), ranging from 1160 to 2436
- First cousins average 866 cM (12.5%), ranging from 396 to 1397
- Levels under 1160 can corroborate a first cousin kinship, while levels over 1397

Staying Organized

- The likelihood of multiple siblings being beyond the overlap for particular kinships goes down
- Group matches by the particular half, quadrant, eight, etc.
- Keep in mind of identical twins, endogamous ancestry, and half level kinships
- Not all matches are what they first appear to be



THANK YOU!

AmericanAncestors.org



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