

DNA in Practice

Class 3: Determining Recent Parentage

Chris Child, Senior Genealogist

THE BRUE FAMILY LEARNING CENTER



American Ancestors®
by NEW ENGLAND HISTORIC GENEALOGICAL SOCIETY

Meet today's presenter

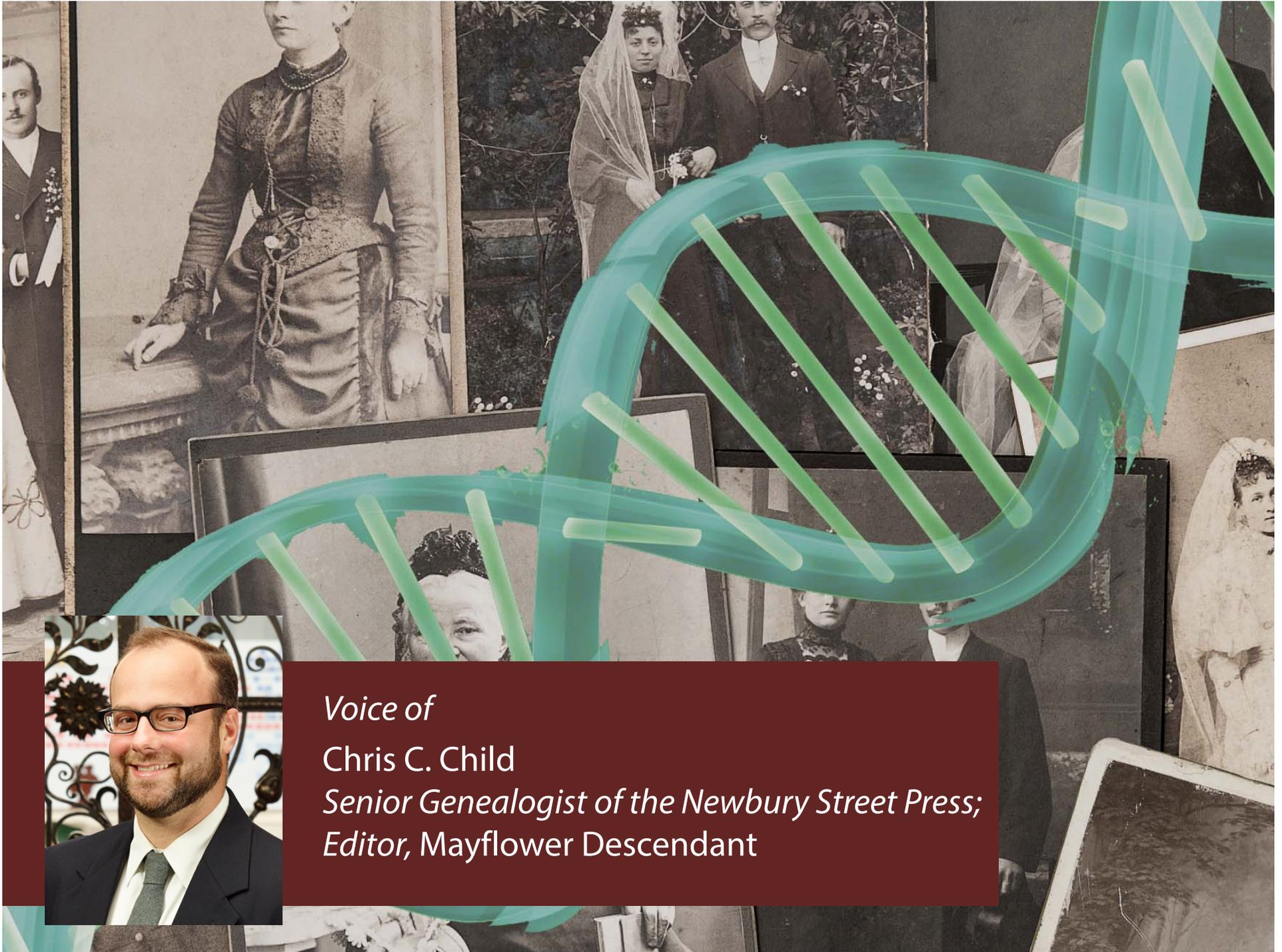


Christopher C. Child

Senior Genealogist of the Newbury Street Press;
Editor, *Mayflower Descendant*

OVERVIEW

- **Presentation (60 mins.)**
 - Reasons for determining recent parentage
 - What company to test
 - Evaluating DNA autosomal statistics
 - Helpful tools (WATO)
 - Charting out matches in a tree



Voice of
Chris C. Child
*Senior Genealogist of the Newbury Street Press;
Editor, Mayflower Descendant*

Reasons for determining recent parentage

- Person knows adopted or has an unknown parent or grandparent
- As a result of taking a commercial DNA test, a person learns they are adopted, or an ancestor of record is not their genetic ancestor (unexpected results)

Types of Surprises

- “Colonial” Surprises (Y-DNA, mtDNA, xDNA)
- More recent surprises (atDNA, Y-DNA, mtDNA, xDNA)

Reasons for Unexpected Results

- “misattributed parentage”
 - Extramarital relationship
 - Unknown adoption
 - Use of sperm or egg donation
 - Incorrect genealogical conclusions
 - Mistaken assumptions of the match from an online tree
 - Switched at birth, or later in life
- Less shared DNA, while the known kinship still works

Using DNA to find biological relatives

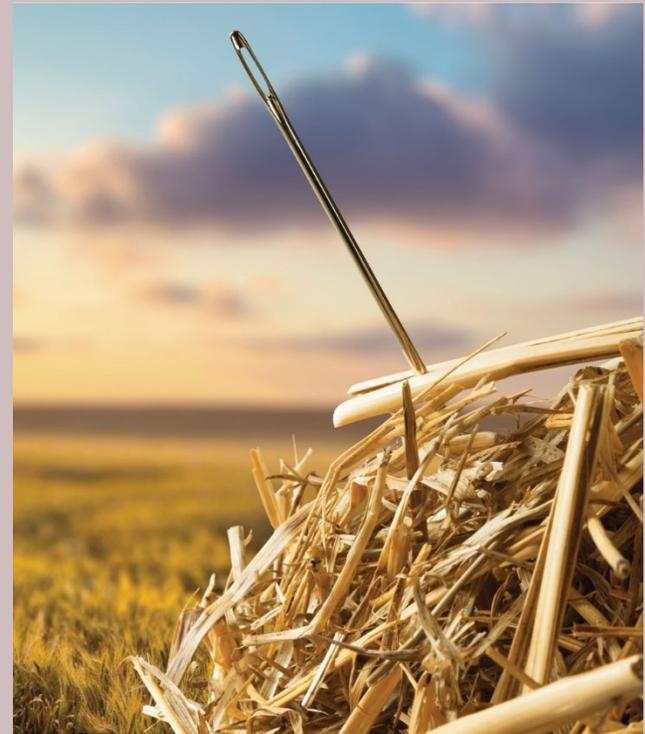
- Now often a “first resort”
- Not all answers may be available
- Sometimes you can only figure out half the solution or narrow it down to a few siblings or cousins

Types of DNA tests

- Y-DNA test (patrilineal line)
- mtDNA test (matrilineal line)
- X-DNA (contained with an autosomal test)
- Autosomal DNA test

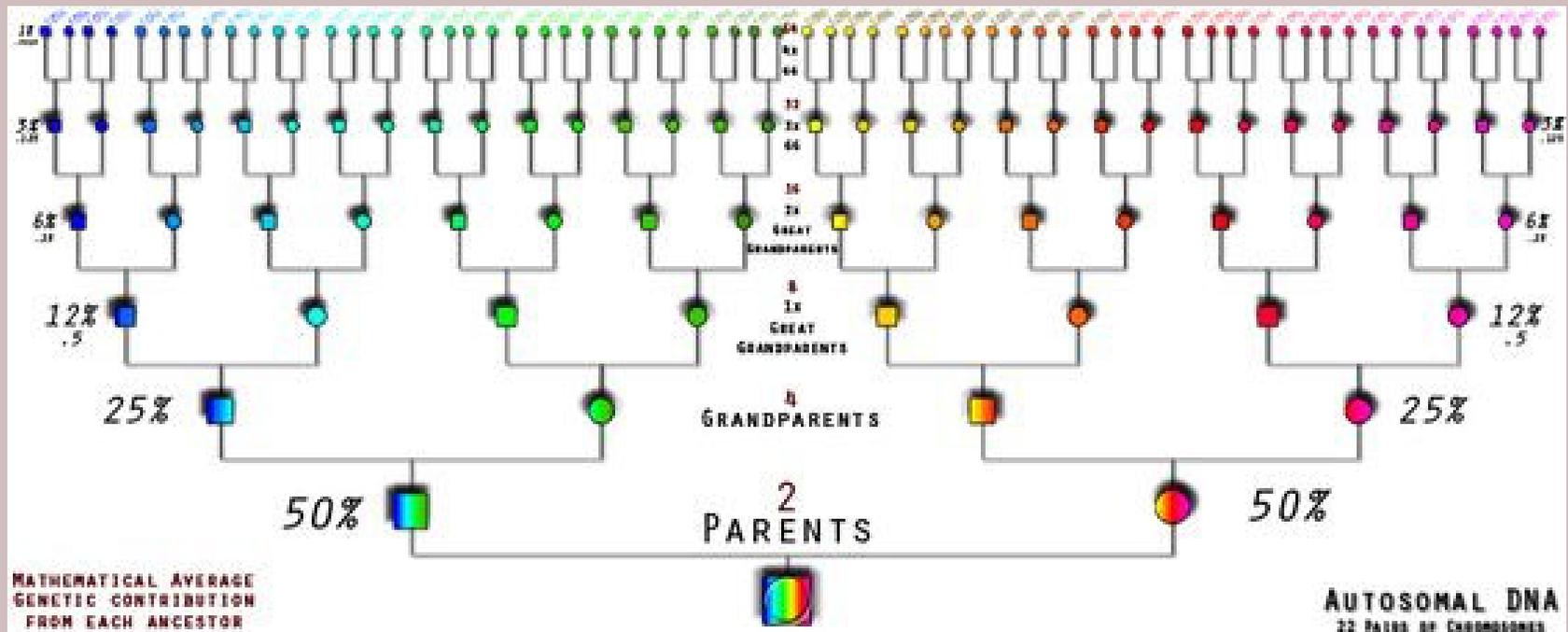
Usefulness of Y-DNA, mtDNA, X-DNA tests alone

- Truly a needle in a haystack
- Maybe used in conjunction with autosomal testing
- Rarely a solution from these tests alone



Autosomal tests (atDNA)

average amount of DNA from ancestors



Will DNA help?

- Are you or your parent the adoptee or person of unknown parentage?
- Were your ancestors living in the United States?
- Have several generations passed since the adoption or misattributed parentage?
- Did this occur in a country other than the U.S.?
- It's always worth taking a test, but . . . *there are no guarantees!*

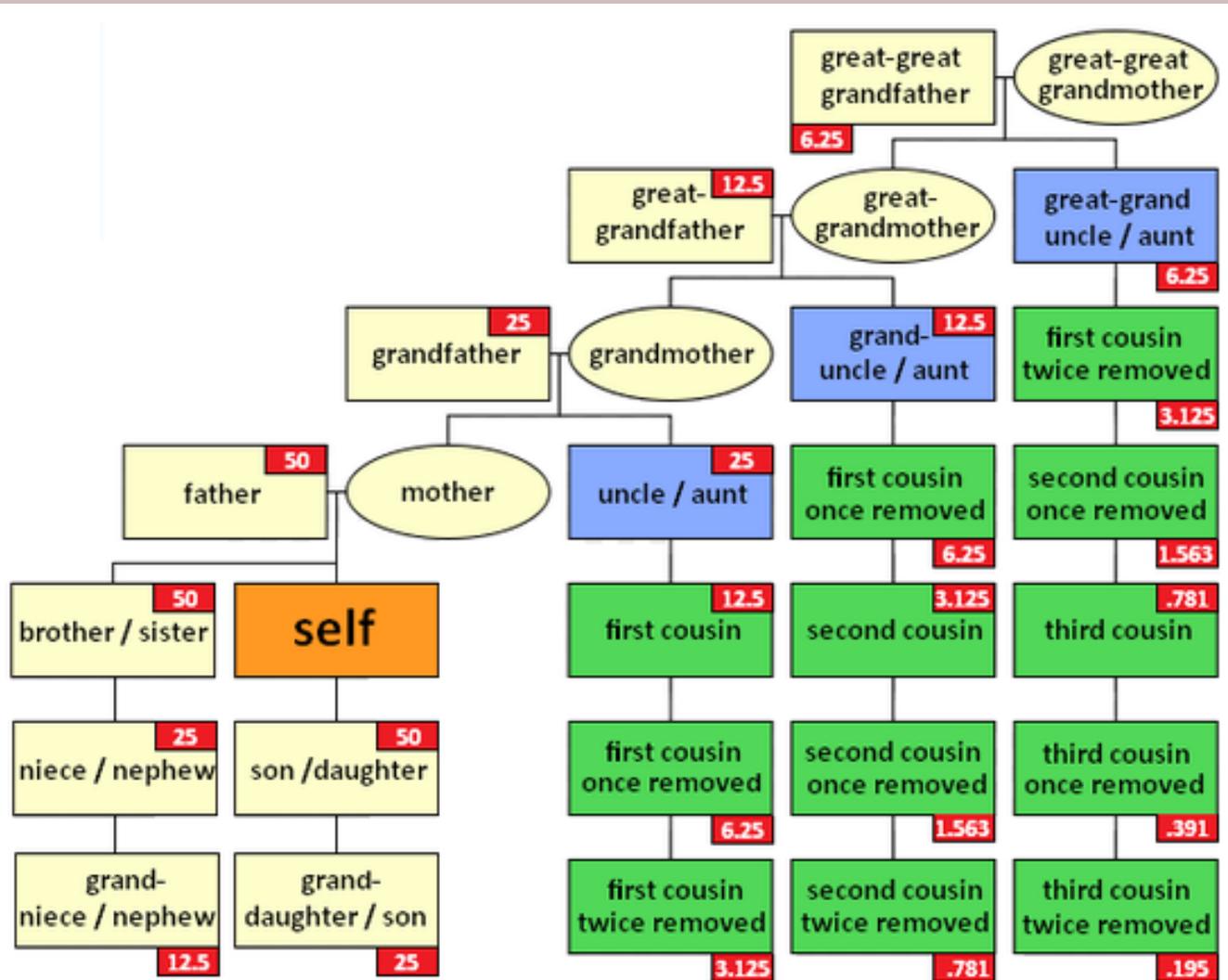
Tip

If you or your parent has
a misattributed
parentage, test relatives
on the “known” side

Finding the Adopted or Rumored Relative

- If you or a close relative gave a child up for adoption or lost relative, and you want to find them through DNA testing, this process may be more difficult
- There are fewer individuals whose results would help you find the adopted or lost child
- A person usually has more first and second cousins than descendants
- You won't know until you test!

Expected DNA with cousins



DNA Autosomal Statistics

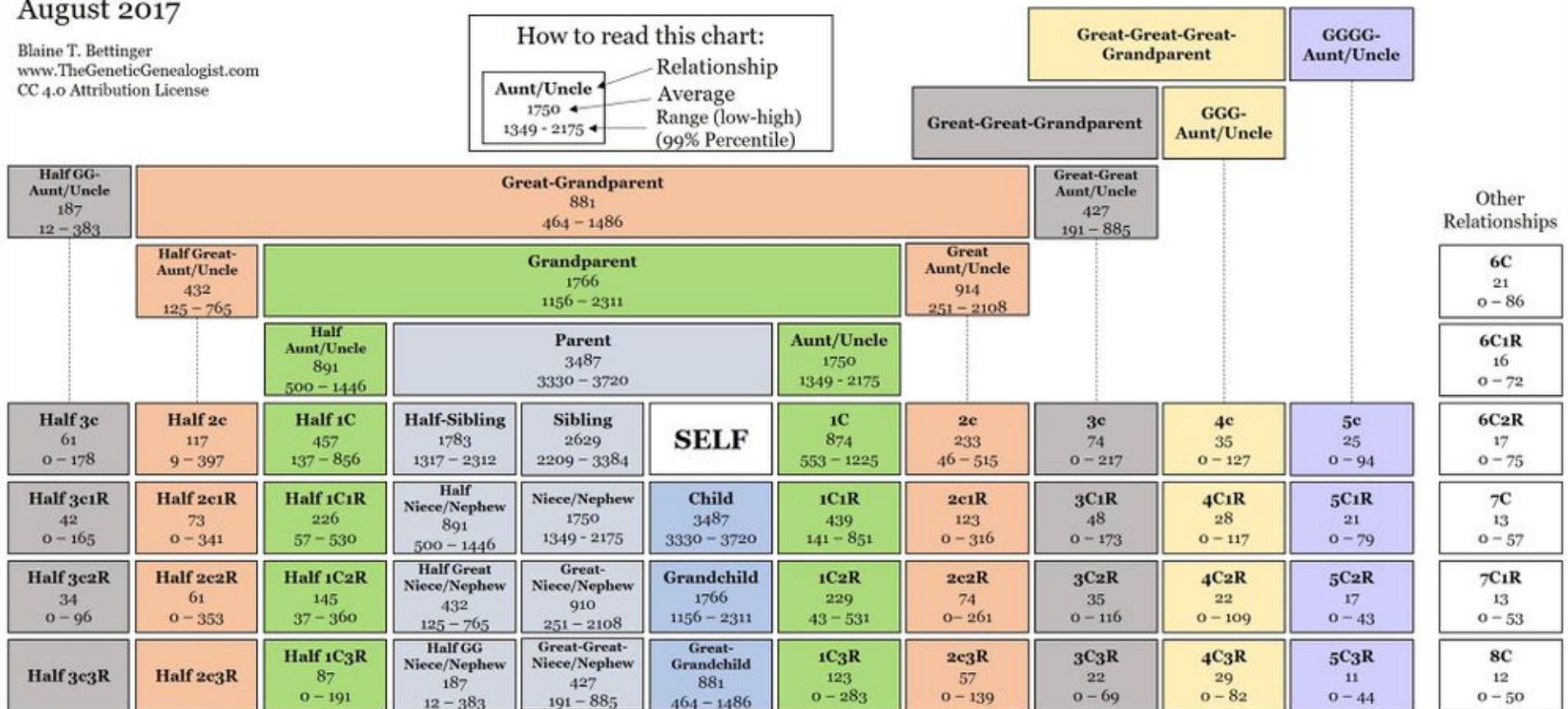
The Shared cM Project – Version 3.0
August 2017

For MUCH more information (including histograms and company breakdowns) see: goo.gl/Z1EcJQ

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

Aunt/Uncle	Relationship
1750	Average
1349 - 2175	Range (low-high) (99% Percentile)



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

Which company to take a test? (as of October 2022)

- AncestryDNA – 21 million (most testers with trees and better searching capabilities)
- 23andMe – 12.8 million (but also shows mtDNA and Y-DNA haplogroups)
- MyHeritage – 6 million
- FamilyTreeDNA – 1.2 million

Taking a DNA test

- Most are saliva tests (can be difficult for some older individuals)
- FamilyTreeDNA and MyHeritage are cheekswab tests
- 23andme offers a “child test” (although my five year could take it!)



Uploading your "RawDNA" elsewhere

- GedMatch
- FamilyTreeDNA
- MyHeritage

User Profile (74329):
 Name: Chris Child
 Email: [redacted]@gmail.com
 Registered User
[View/Change/Delete your profile \(password, email, groups\)](#)
[Change EU/Unknown kit status](#)
 The number of online users is 116

LEGEND:	
(Status indicators shown to the right of each kit below)	
✓	Kit has completed all processing and has good status
✎	Click on pencil if you wish to EDIT or DELETE kit profile
?	Unknown Status
Click on blue kit number to go directly to one-to-many results	

Your DNA resources:

M[redacted]22	✓	Edward Horton	
M[redacted]36	✓	Vernon Horton	
M[redacted]39	✓	Paul Challenger	
[redacted]4	y ✓	Joy Challenger Child	
M[redacted]90	y ✓	William Child	
M[redacted]	✓	Daniela Child	
M[redacted]	y ✓	Chris Child	
M5[redacted]	✓	Arlene Ovalle-Child	

Going through your results

Wicked Easy!

Parent/Child



Joyce ██████████

Parent/Child

Shared DNA: 3,476 cM across 29 segments

👤 1,615 People



Harry ██████████

Parent/Child

Shared DNA: 3,458 cM across 27 segments

👤 1,615 People

But remember ...



Screenshot Everything!

- All the numbers
- All the trees
- Any identifying information
- This kit may not be managed by the person that took the test, it may be their spouse, child, parent, etc.

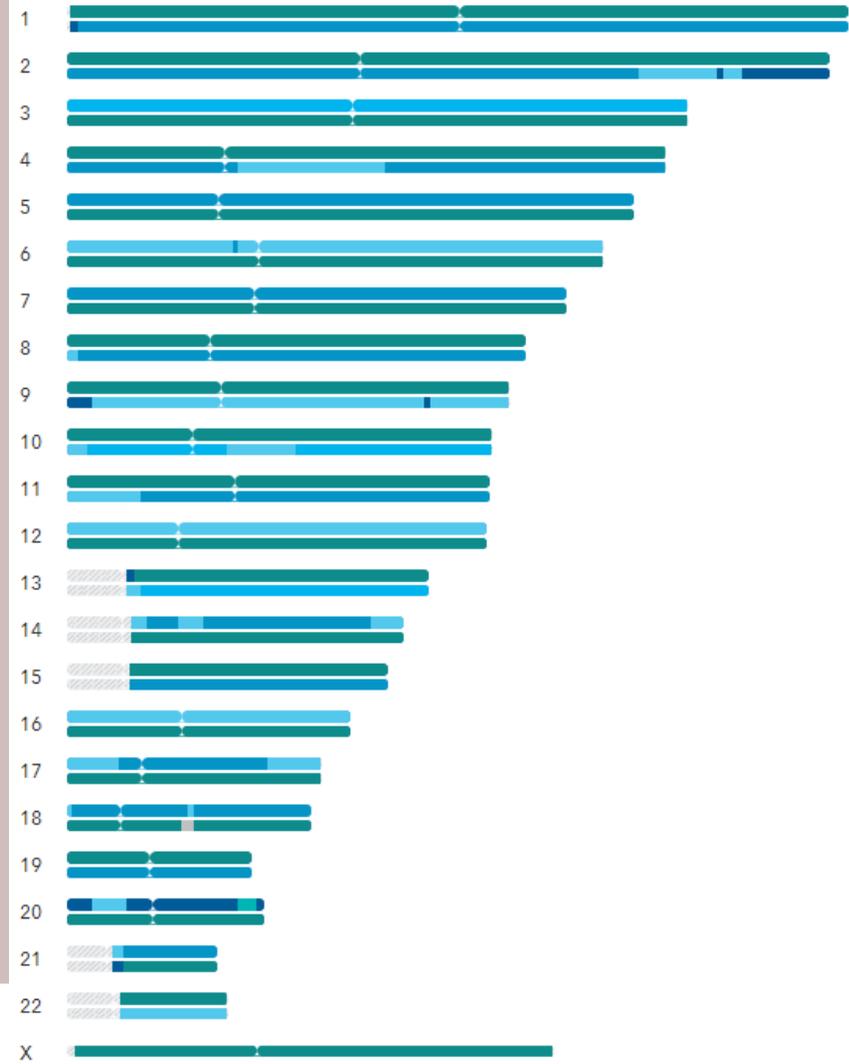
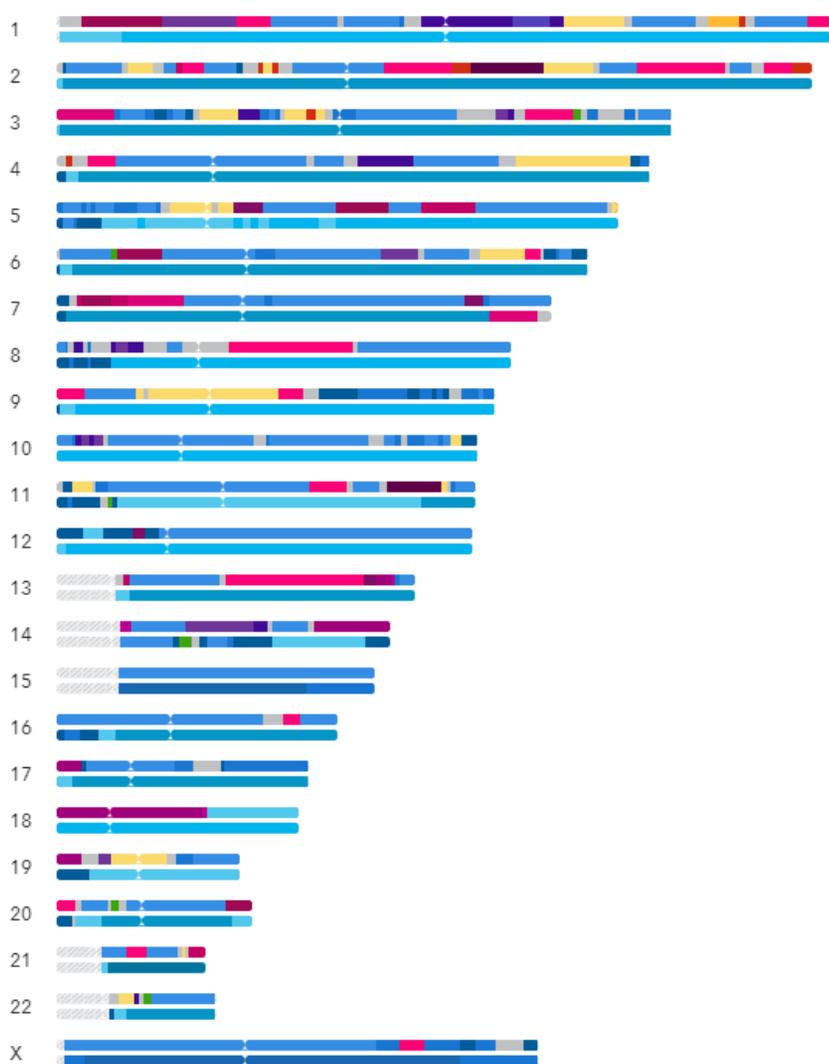
Close Family	
 Alice [redacted]	Close Family-1st Cousin Shared DNA: 1,532 cM across 25 segments
2nd Cousin	
 D.D. Managed by 193 [redacted]	1st-2nd Cousin Shared DNA: 491 cM across 19 segments
 jim [redacted]	1st-2nd Cousin Shared DNA: 376 cM across 13 segments
 ksh [redacted]	2nd-3rd Cousin Shared DNA: 325 cM across 15 segments
 jack [redacted]	2nd-3rd Cousin Shared DNA: 309 cM across 13 segments

“Sleeping matches”

- People get this test based on the commercial
- Some people never look at their matches and never upload a tree
- Email messages go to spam
- Some matches are dead
- It can be possible to identify matches based on their screen name or other identifying information even no contact is established

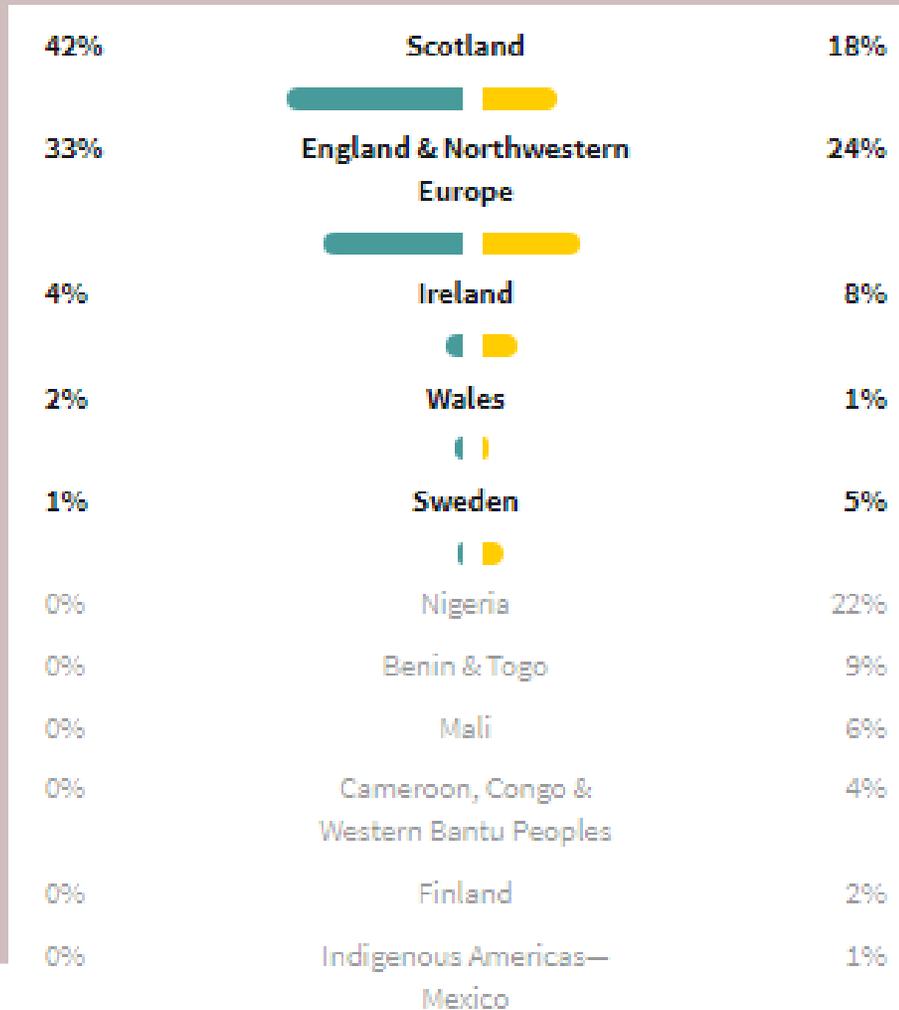
**Do the ethnic
amounts matter?**

Chromosome Browser (23andme)



AncestryDNA Amounts

● England & Northwestern Europe	44%	>
● Portugal	13%	>
● Spain	12%	>
● Scotland	9%	>
● France	3%	>
● Indigenous Haiti & Dominican Republic	3%	>
● Cameroon, Congo & Western Bantu Peoples	3%	>
● Germanic Europe	3%	>
● Benin & Togo	2%	>
● Senegal	2%	>
● Ireland	2%	>
● Mali	1%	>
● Eastern Bantu Peoples	1%	>
● Southern Bantu Peoples	1%	>
● Ivory Coast & Ghana	1%	>



Helpful Tools

DNA PAINTER

Tools

Help

Subscribe

Warning: This tree is currently saved within yo

What Are the Odds? [Show tips](#) [Read the FAQ](#) [New interface!](#)

Target name: Enter the name of the person you're trying to place in the tree

Birth year: YYYY

My research question is: Enter the question you are trying to answer here

→ SUGGEST HYPOTHESES

→ REMOVE SUGGESTED HYPOTHESES

Most recent common
ancestor or couple

Who is my father?

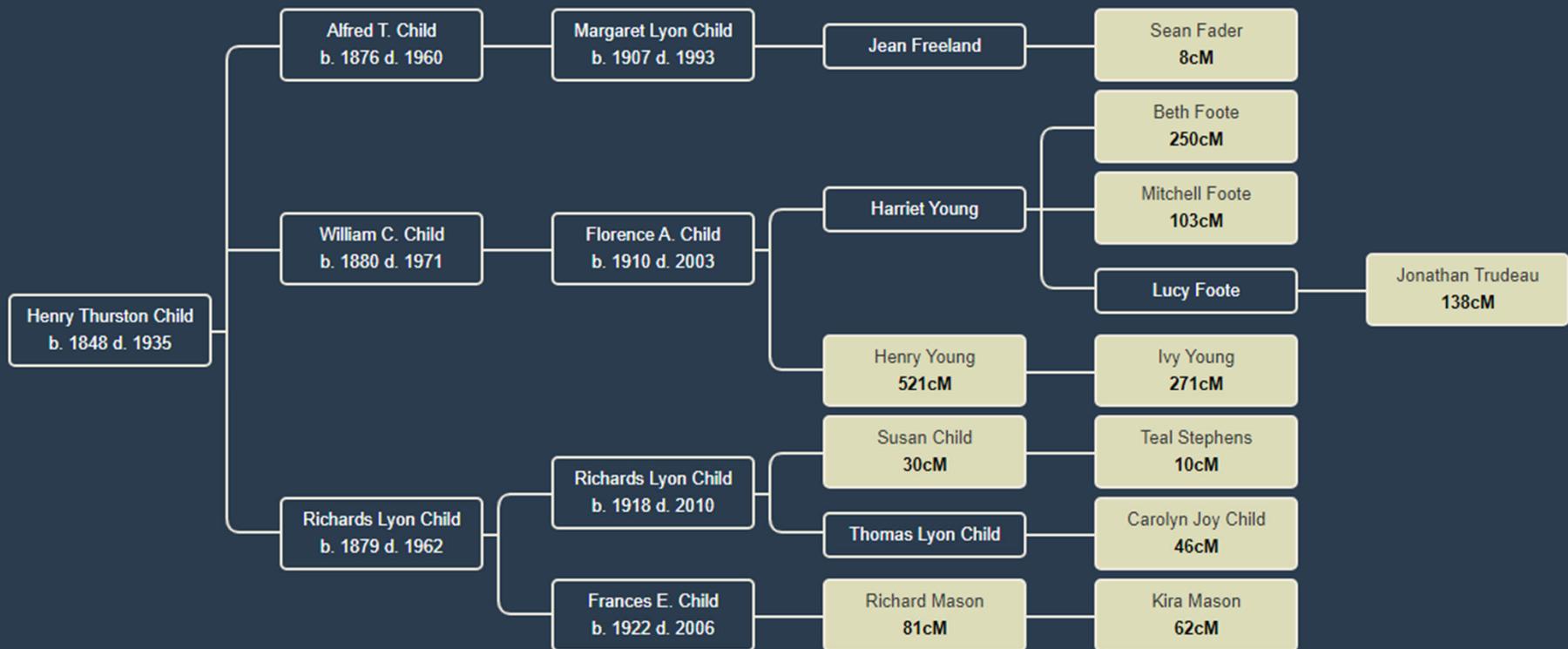
What Are the Odds? [Show tips](#) [Read the FAQ](#) [New interface!](#)

Target name: **Chris Child** Birth year: 1980

[Load](#) [Save](#) [Share](#) [Clear](#) [Settings](#)

My research question is: **Who is Chris Child's father?**

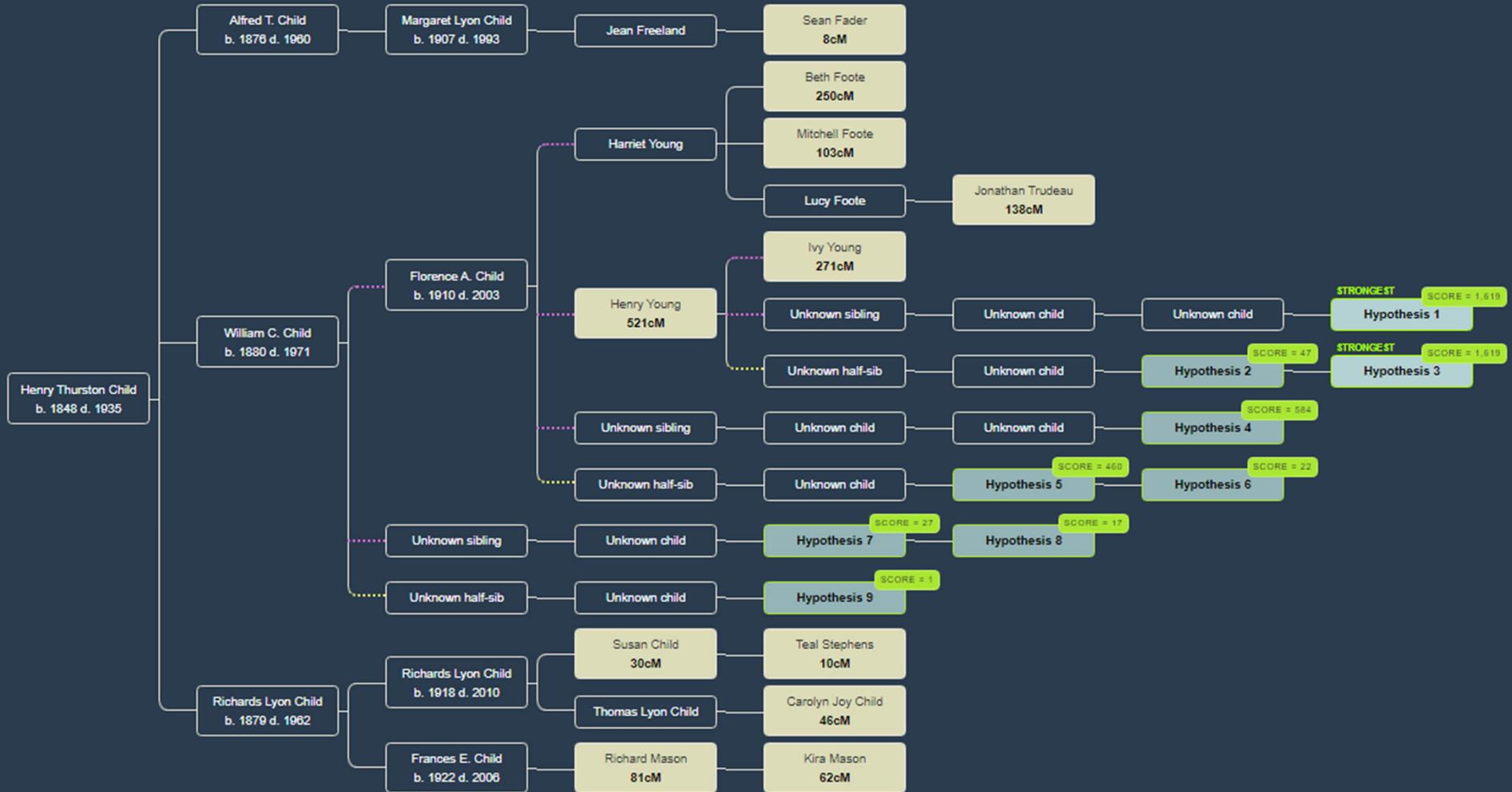
[→ SUGGEST HYPOTHESES](#) [→ REMOVE SUGGESTED HYPOTHESES](#)



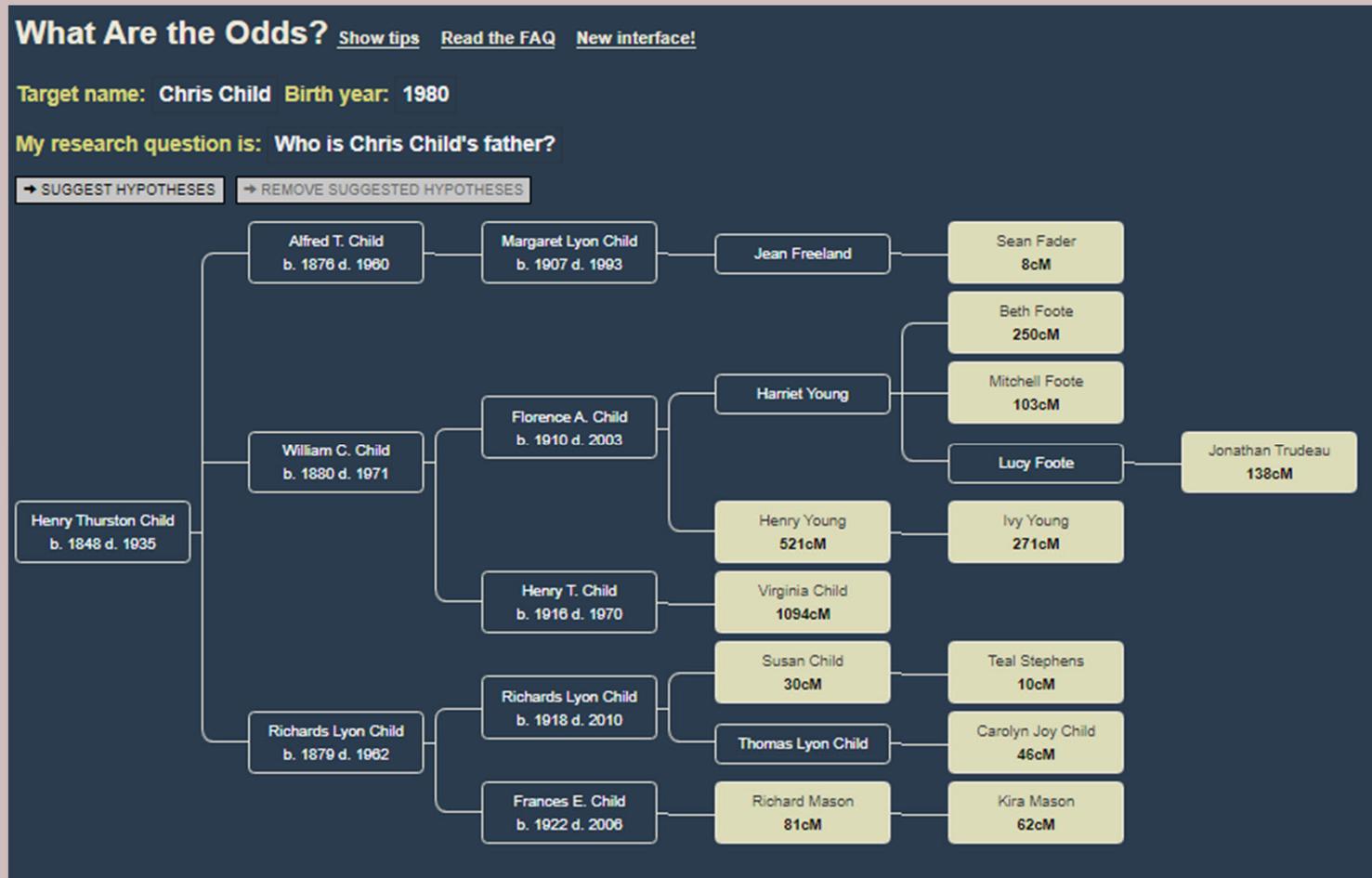
9 hypothesis

📌 You have one or more hypotheses that are possible

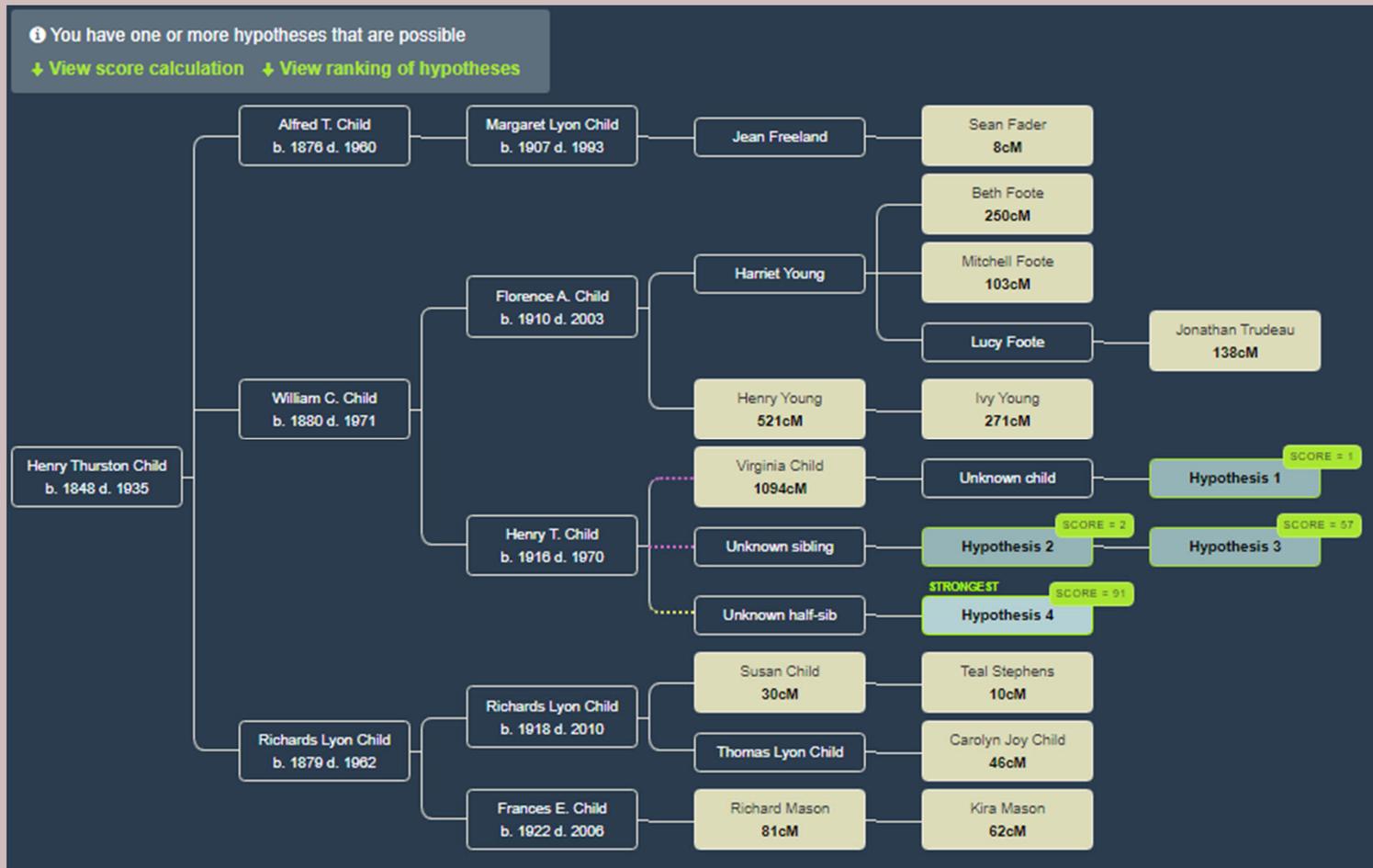
➔ View score calculation ➔ View ranking of hypotheses



One more relative



Now only four possibilities





QUESTIONS?

Figuring out recent parentage with some known information

Amanda, born 1986

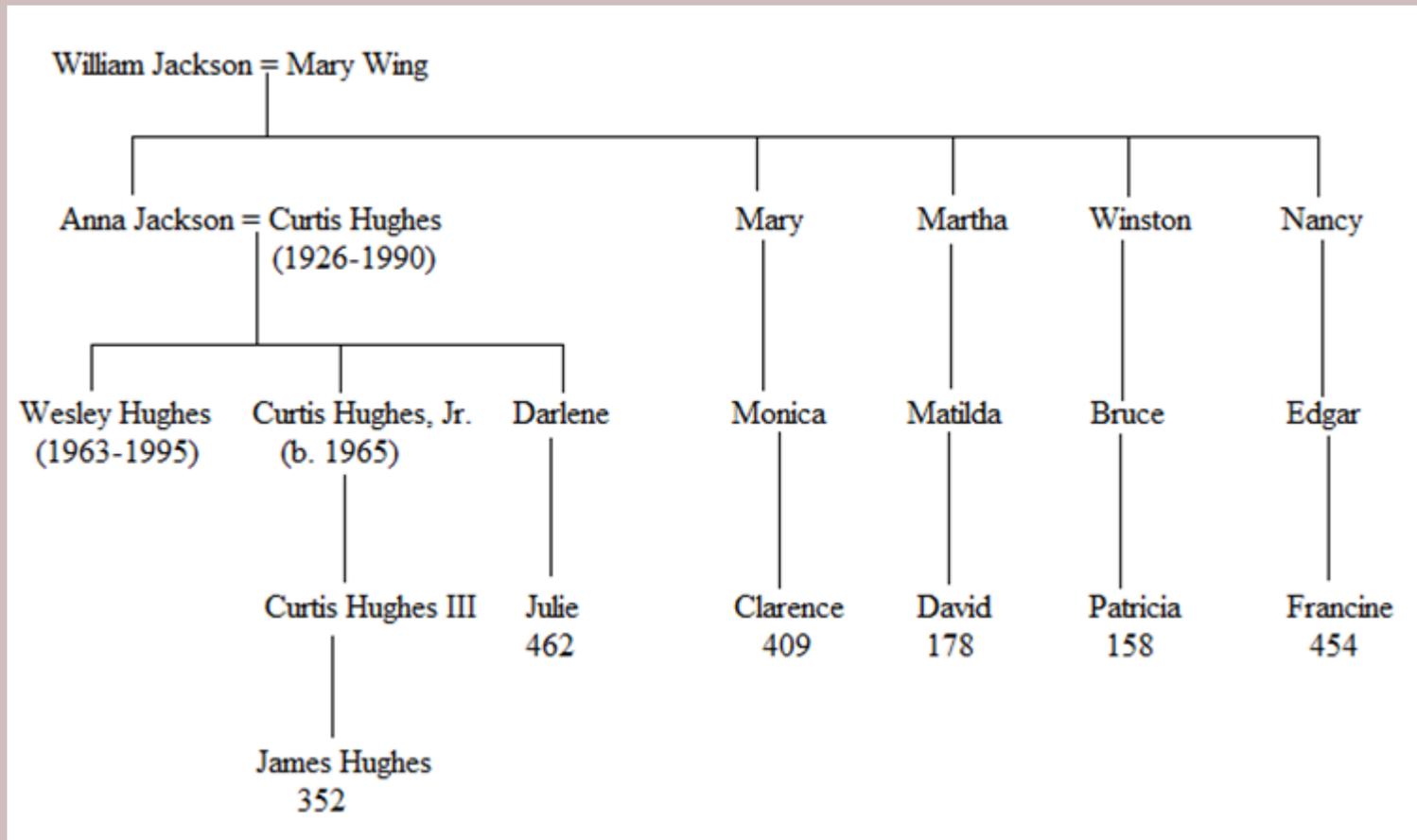
- Raised by a single mother
- Mother is not sure who biological father is, acknowledges relationships with two brothers – Wesley and Curtis, as well as their father Curtis (Sr.)
- Wesley and Curtis Sr. have died
- Curtis, Jr. is living but will not take a DNA test

Going through the Trees of Shared Matches

- Find common ancestors between shared matches
- Chart out how they are related
- From close matches common ancestors, see if you relate do descendants of each of their siblings
- Identify them as a likely “ancestral couple”

Trees Ethnicity <u>Shared Matches</u>			
Filter by: Unviewed Common ancestors Messaged Notes Trees Groups			
Parent/Child			
 Managed by [redacted]	Parent/Child Shared DNA: 3,486 cM across 23 segments	 Unlinked Tree	 Add to group
2nd Cousin			
 [redacted]	1st-2nd Cousin Shared DNA: 454 cM across 19 segments	 Unlinked Tree	 Add to group
 Managed by BkShadow123	1st-2nd Cousin Shared DNA: 409 cM across 20 segments	 169 People	 Add to group
 [redacted]	1st-2nd Cousin Shared DNA: 398 cM across 19 segments	 3 People	 Add to group
 [redacted]	1st-2nd Cousin Shared DNA: 352 cM across 11 segments	 Unlinked Tree	 Add to group
3rd Cousin			
 [redacted]	3rd-4th Cousin Shared DNA: 200 cM across 13 segments	 7 People	 Add to group
 [redacted]	3rd-4th Cousin Shared DNA: 197 cM across 9 segments	 No Trees	 Add to group
 Managed by BkShadow123	3rd-4th Cousin Shared DNA: 178 cM across 9 segments	 169 People	 Add to group

Close matches with family members of the two brothers' mother

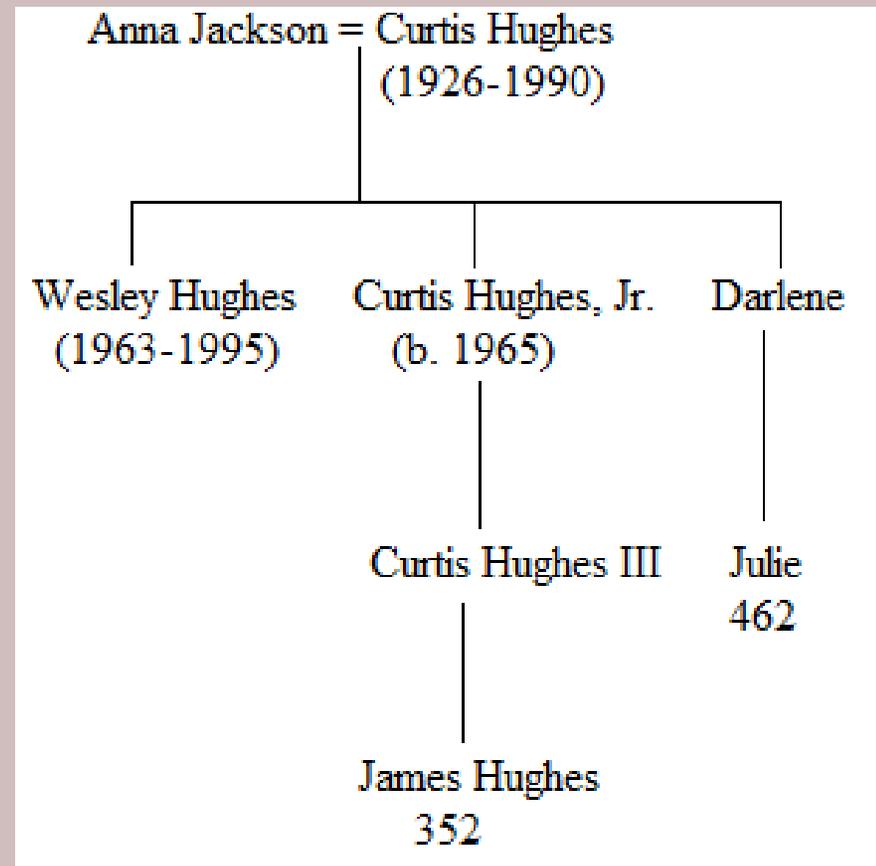


The Jackson Second Cousins

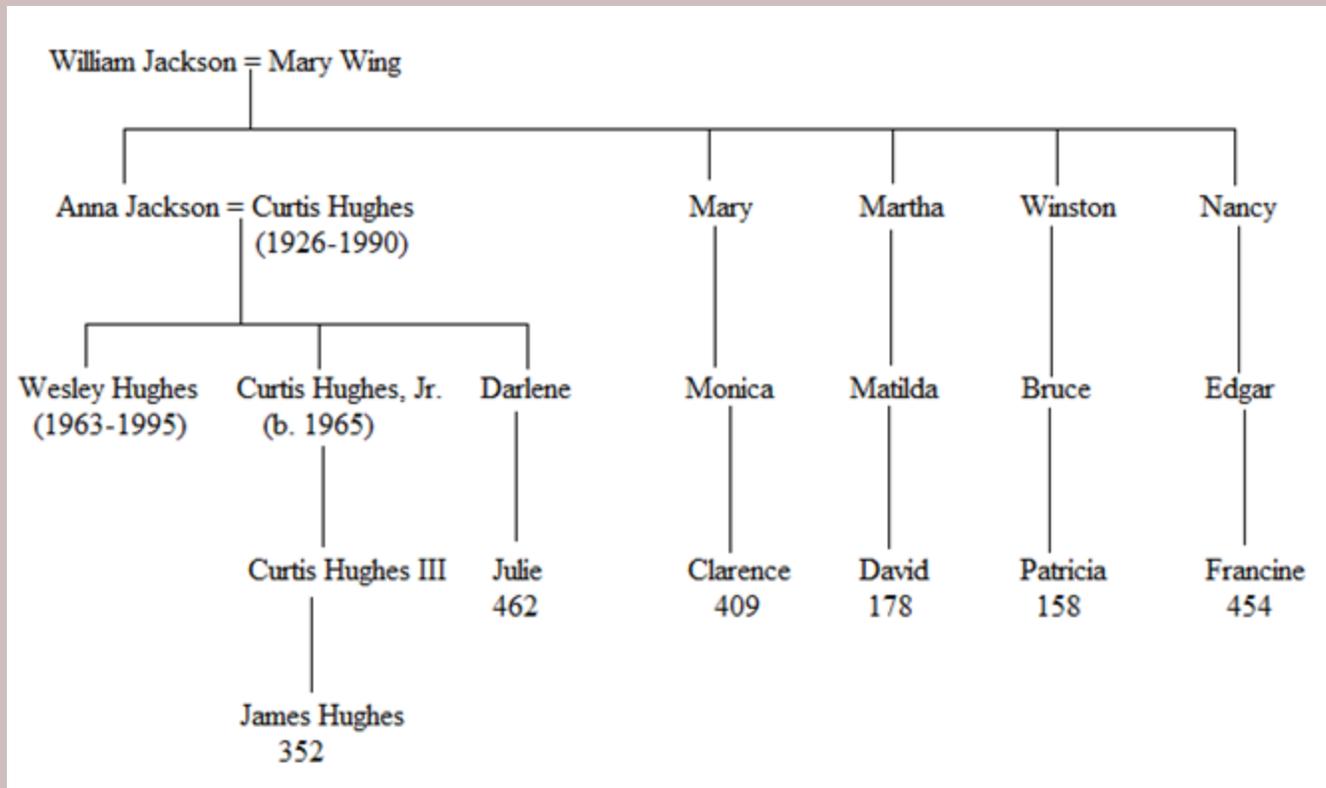
- If Wesley or Curtis, Jr. were Amanda's father, the four other (non-Hughes) great-grandchildren would be Amanda's second cousins
- Their numbers range from 178–454
- Second cousins average 233, and can range from 46–515 [consistent]
- This would eliminate Curtis Hughes, Sr., as these are relatives via his wife

James and Julie

- James is either a half-nephew (500–1446) or a first cousin once removed (141–851)
- Julie should be a first cousin, which averages 874, ranging 553–1225



Possible explanations?



- A maternal first cousin is Amanda's father?

Tip

Think of your biological heritage in terms of “halves,” “quadrants,” “eighths,” etc.

Top Twelve Matches

Parent/Child	
 [Redacted] Managed by [Redacted]	Parent/Child Shared DNA: 3,486 cM across 23 segments
Close Family	
 [Redacted]	Close Family-1st Cousin Shared DNA: 1,922 cM across 60 segments
 [Redacted]	Close Family-1st Cousin Shared DNA: 1,646 cM across 54 segments
1st Cousin	
 [Redacted]	1st-2nd Cousin Shared DNA: 1,008 cM across 44 segments
 [Redacted]	1st-2nd Cousin Shared DNA: 1,006 cM across 39 segments
 [Redacted]	1st-2nd Cousin Shared DNA: 932 cM across 42 segments

 [Redacted]	1st-2nd Cousin Shared DNA: 892 cM across 46 segments
 Katie	1st-2nd Cousin Shared DNA: 889 cM across 18 segments
2nd Cousin	
 [Redacted]	1st-2nd Cousin Shared DNA: 514 cM across 27 segments
 [Redacted] Managed by [Redacted]	1st-2nd Cousin Shared DNA: 466 cM across 23 segments
 Julie	1st-2nd Cousin Shared DNA: 462 cM across 18 segments
 Francine	1st-2nd Cousin Shared DNA: 454 cM across 19 segments

Look for people not related to your other matches

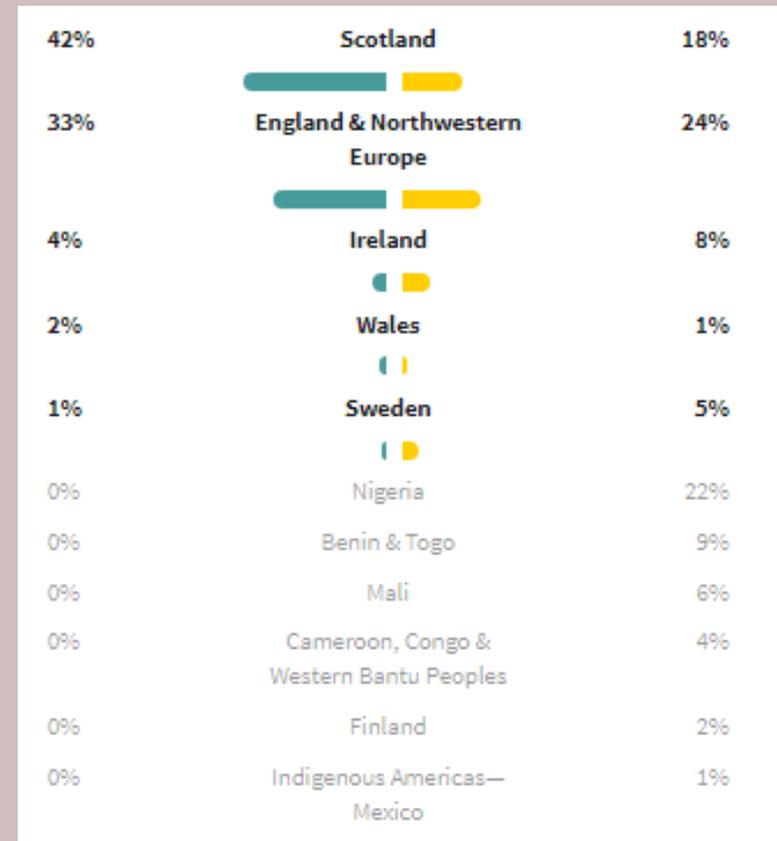
- Group A – 6 maternal first cousins
- Group B – all paternal “first” or second cousins
- Group C – Katie?

What can 889cm be?

Half Great-Aunt/Uncle 432 125 - 765	Grandparent 1766 1156 - 2311				Great Aunt/Uncle 914 251 - 2108	
	Half Aunt/Uncle 891 500 - 1446	Parent 3487 3330 - 3720	Aunt/Uncle 1750 1349 - 2175			
Half 2c 117 9 - 397	Half 1C 457 137 - 856	Half-Sibling 1783 1317 - 2312	Sibling 2629 2209 - 3384	SELF	1C 874 553 - 1225	2c 233 46 - 515
Half 2c1R 73 0 - 341	Half 1C1R 226 57 - 530	Half Niece/Nephew 891 500 - 1446	Niece/Nephew 1750 1349 - 2175	Child 3487 3330 - 3720	1C1R 439 141 - 851	2c1R 123 0 - 316
Half 2c2R 61 0 - 353	Half 1C2R 145 37 - 360	Half Great Niece/Nephew 432 125 - 765	Great-Niece/Nephew 910 251 - 2108	Grandchild 1766 1156 - 2311	1C2R 229 43 - 531	2c2R 74 0 - 261
Half 2c3R	Half 1C3R 87 0 - 191	Half GG Niece/Nephew 187 12 - 383	Great-Great-Niece/Nephew 427 191 - 885	Great-Grandchild 881 464 - 1486	1C3R 123 0 - 283	2c3R 57 0 - 139

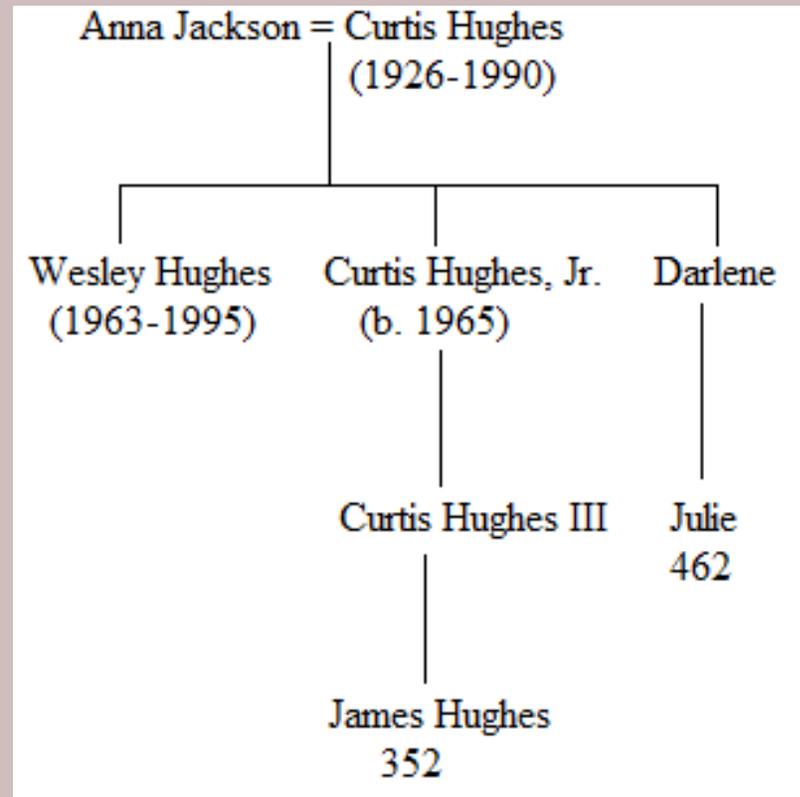
Comparing Ethnicities

- Katie is 41% west African, 59% European
- Amanda has no west African DNA, and neither do any of her other close matches



Julie's number and Katie's match

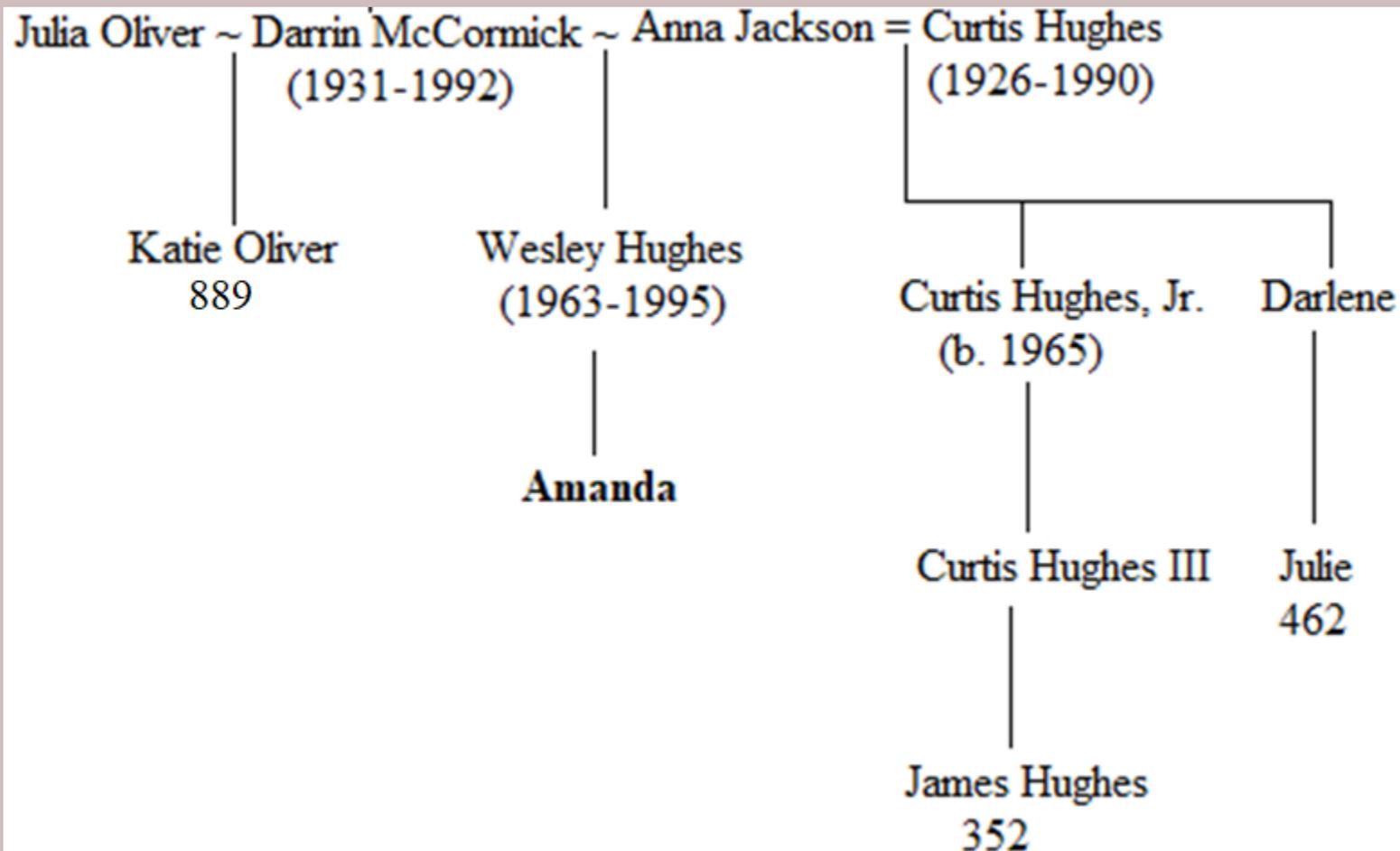
- Julie was too low to be a match at the first cousin level
- Julie and Katie both have to be paternal matches (and close ones), but they are not related to one another



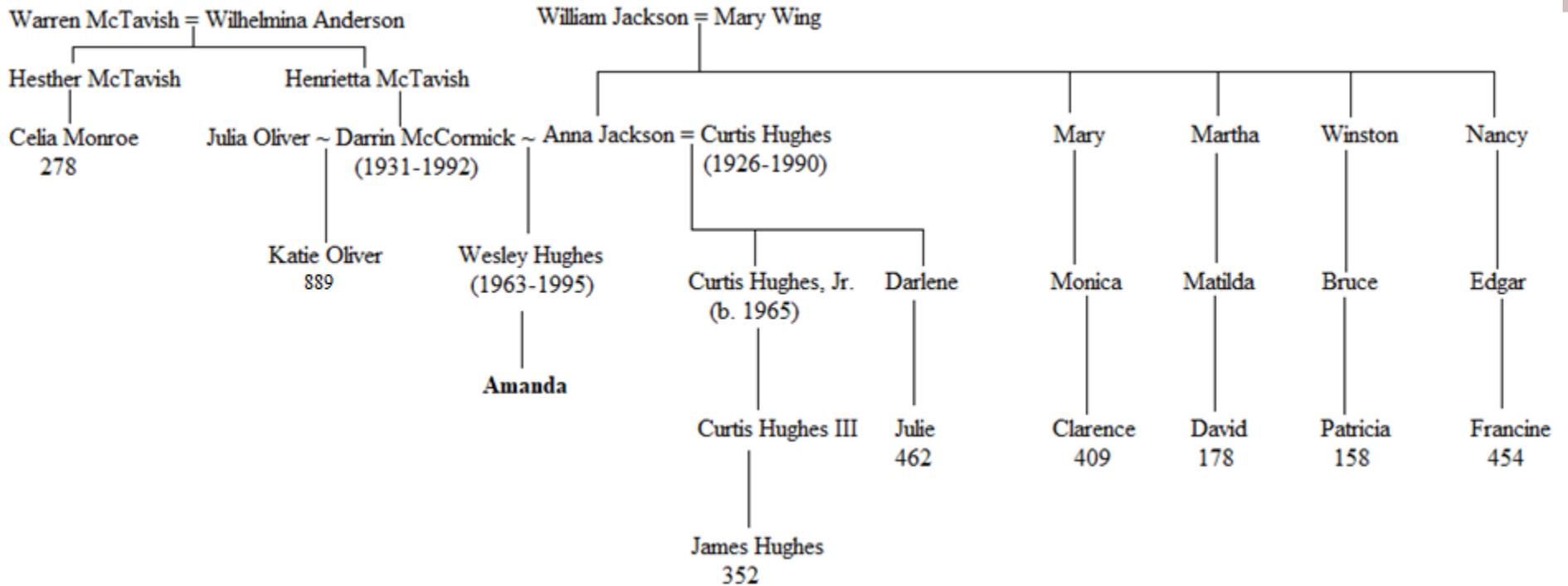
Tip

Always consider the
“half” kinship

Consider a person not the child of their father of record



Working with more distant kin



WATO

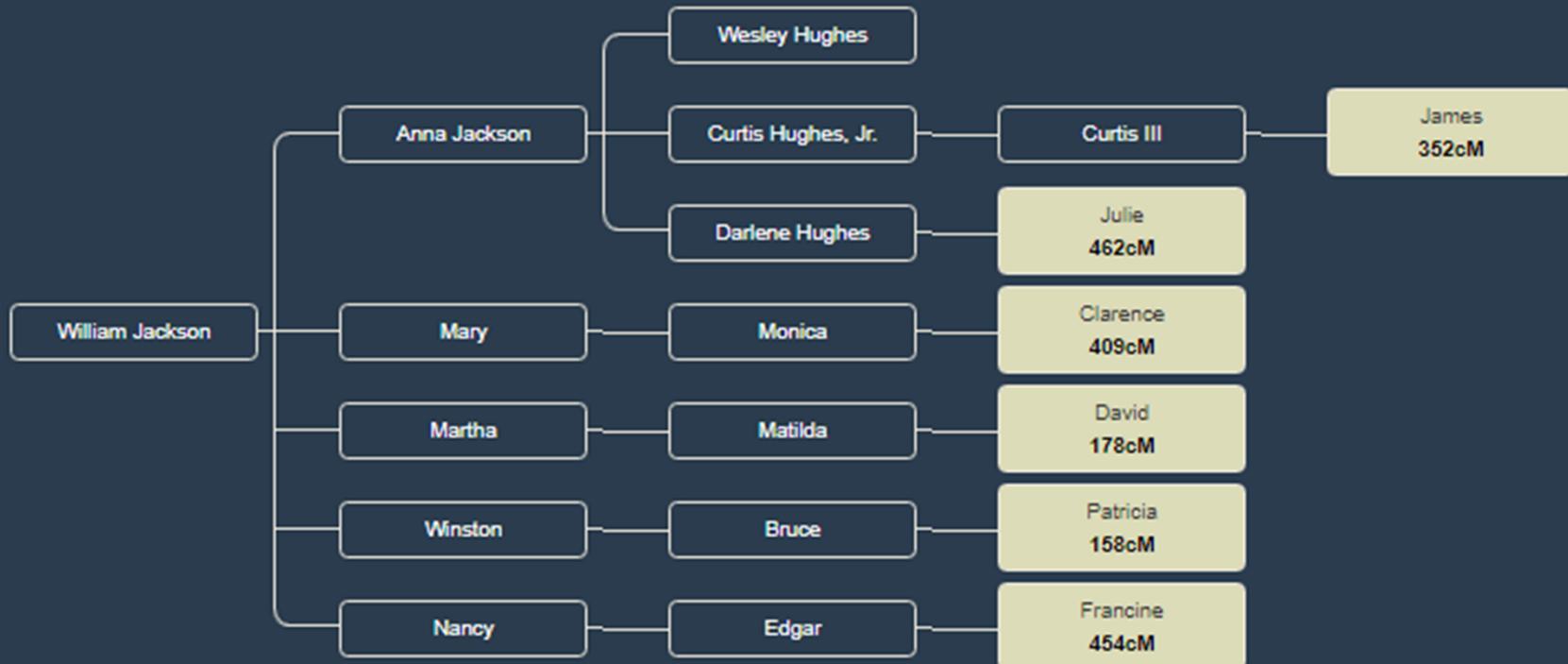
What Are the Odds? [Show tips](#) [Read the FAQ](#) [New interface!](#)

Target name: Amanda Birth year: 1986

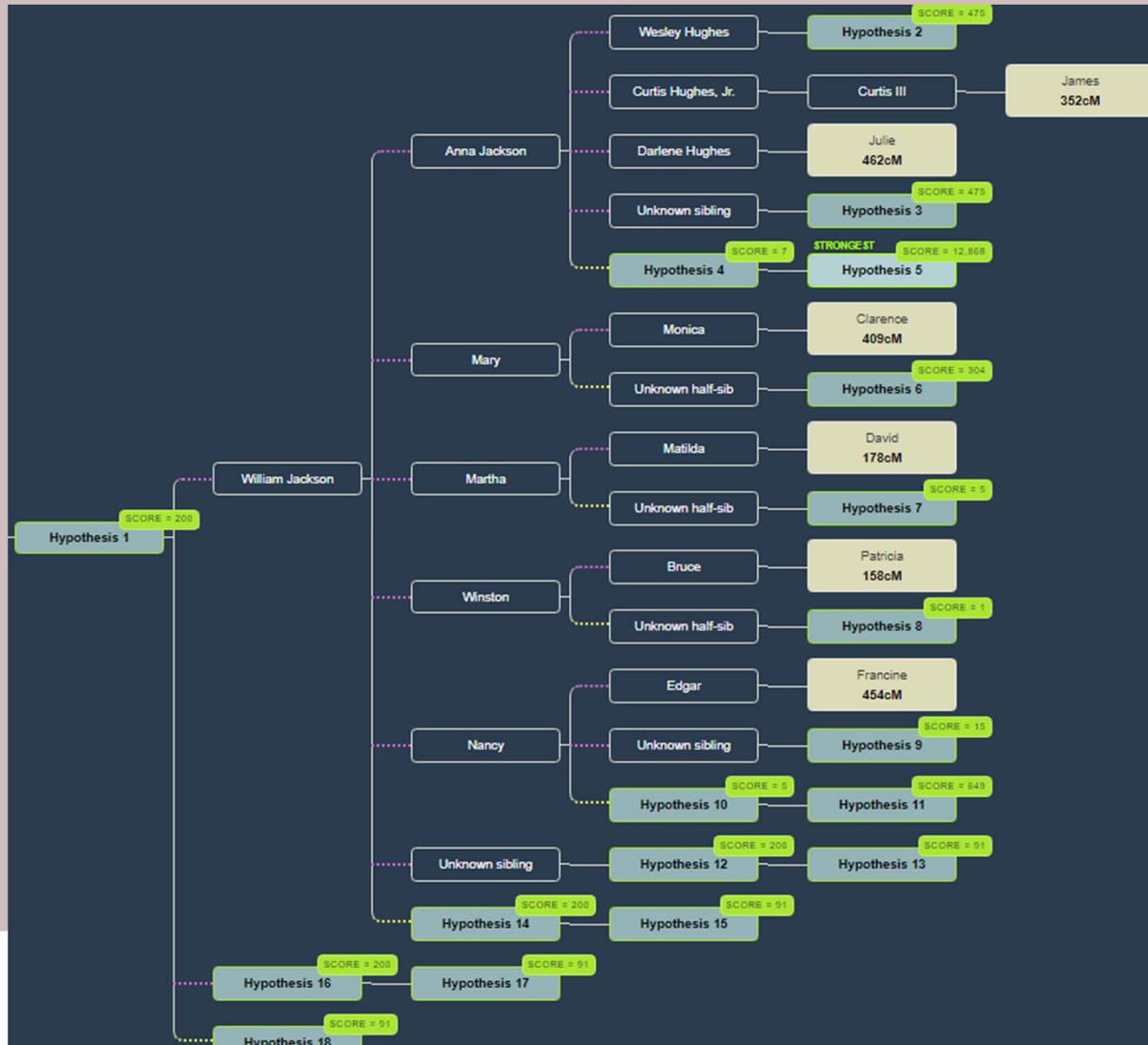
My research question is: Who is Amanda's father?

→ SUGGEST HYPOTHESES

→ REMOVE SUGGESTED HYPOTHESES



Strongest Hypothesis



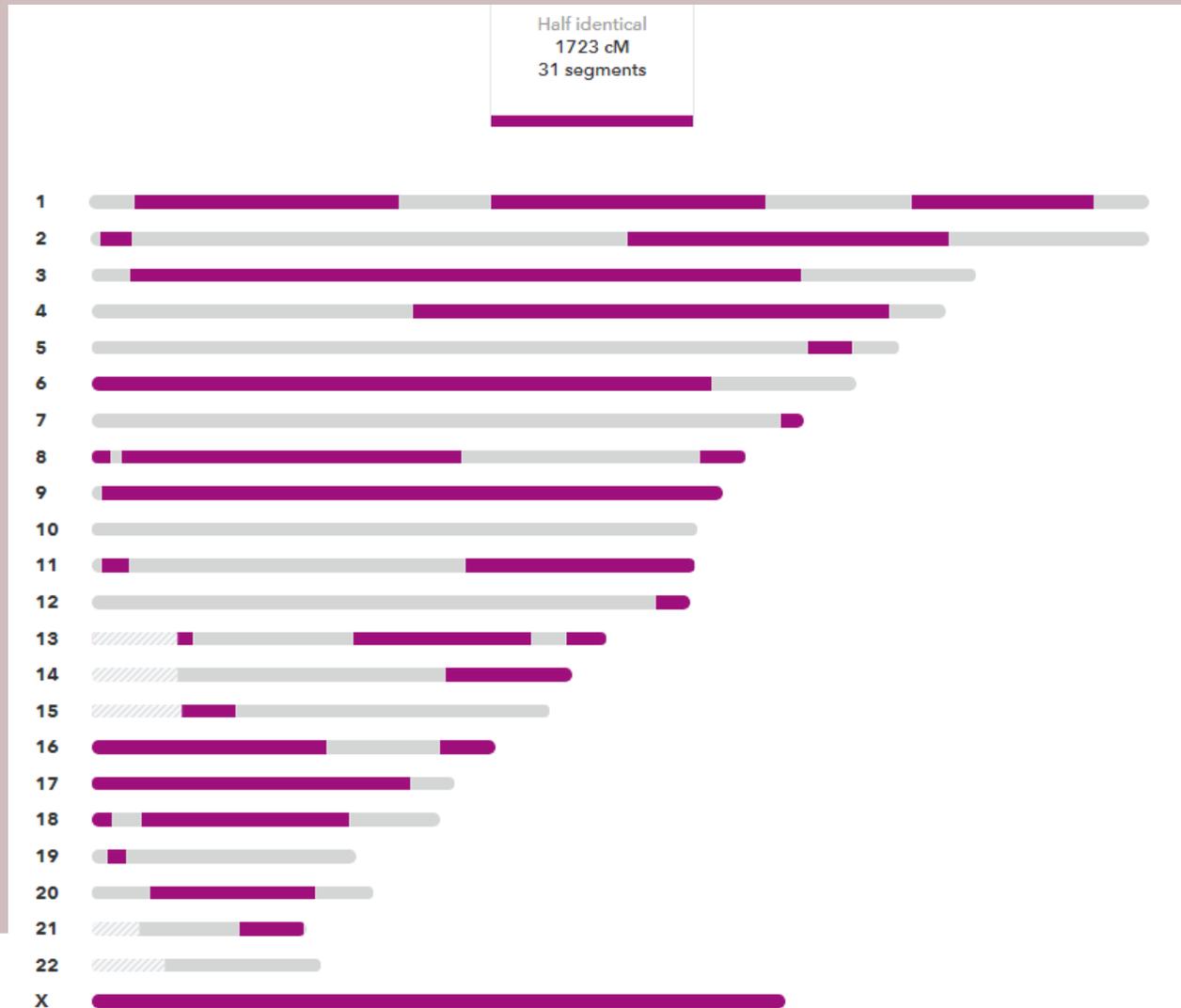
Tip

You may find other close matches also looking for answers

Using Y, mt, and X with autosomal half-siblings

- Paternal half-sisters share a perfect X Chromosome half and have a different mtDNA
- Paternal half-brothers share a perfect Y Chromosome and have a different mtDNA
- Paternal half-siblings of different sexes would share some x chromosome and have a different mtDNA
- Maternal half-sisters share some x chromosome and have the same mtDNA
- Maternal half-brothers share some x chromosome and have the same mtDNA
- Maternal half-siblings of different sexes would share some x chromosome and have the same mtDNA

Half sisters (paternal)



John, Samantha, and Laura

- All raised by parents in different states from one another
- All born in New York City in the 1970s
- They learn from their parents that they were all conceived via artificial insemination. John, Samantha, and Laura all share the same biological father.

Finding the biological father

- Testing with Ancestry, 23andme
- Uploading onto GEDmatch, FamilyTreeDNA, MyHeritage
- John taking a Y-DNA test

Tip

Increased generations

=

Decreased “certainty”

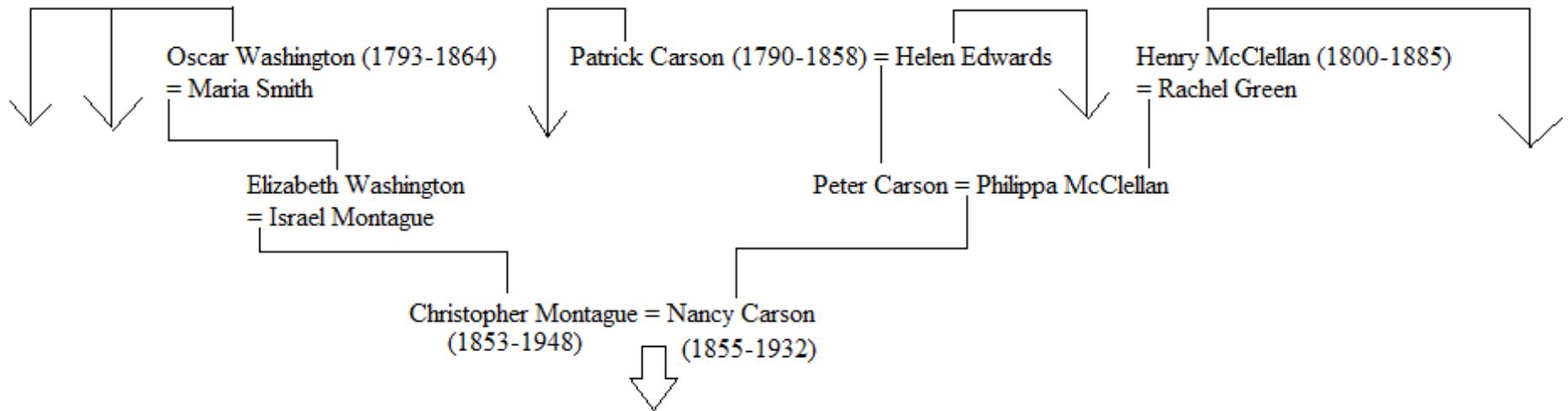
Going Through the shared Matches

- Closest common matches are predicted to be third cousins
- Sorting out shared matches who match to other shared matches and those that don't
- Three regional areas: Iowa, Manitoba, Belgium

Putting the Families Together

- Matching a common Washington family several of the Iowa matches
- Matching a common McClellan family (recently from Ireland) also in Iowa, that does not match the Washingtons
- Finding a way the Washington and McClellan family link!

Iowa Families All Together

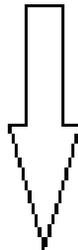


Now Manitoba

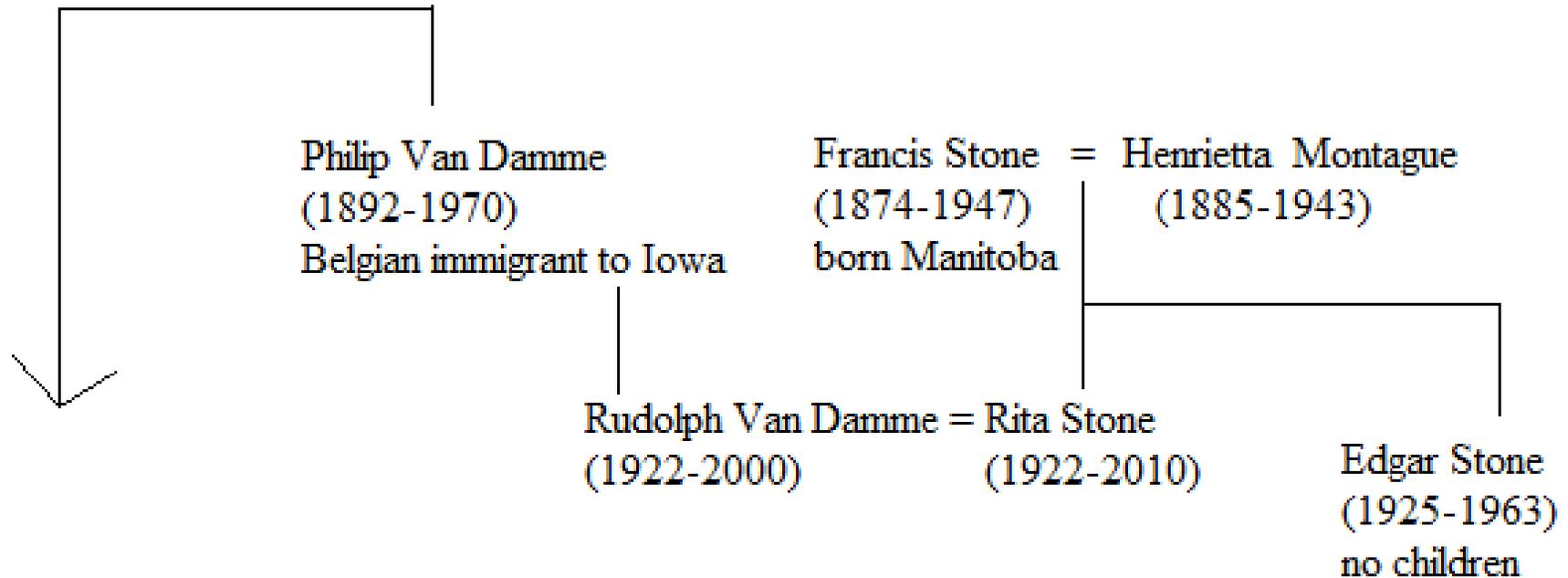
Christopher Montague = Nancy Carson
(1853-1948) (1855-1932)

Francis Stone = Henrietta Montague
(1874-1947) (1885-1943)
born Manitoba

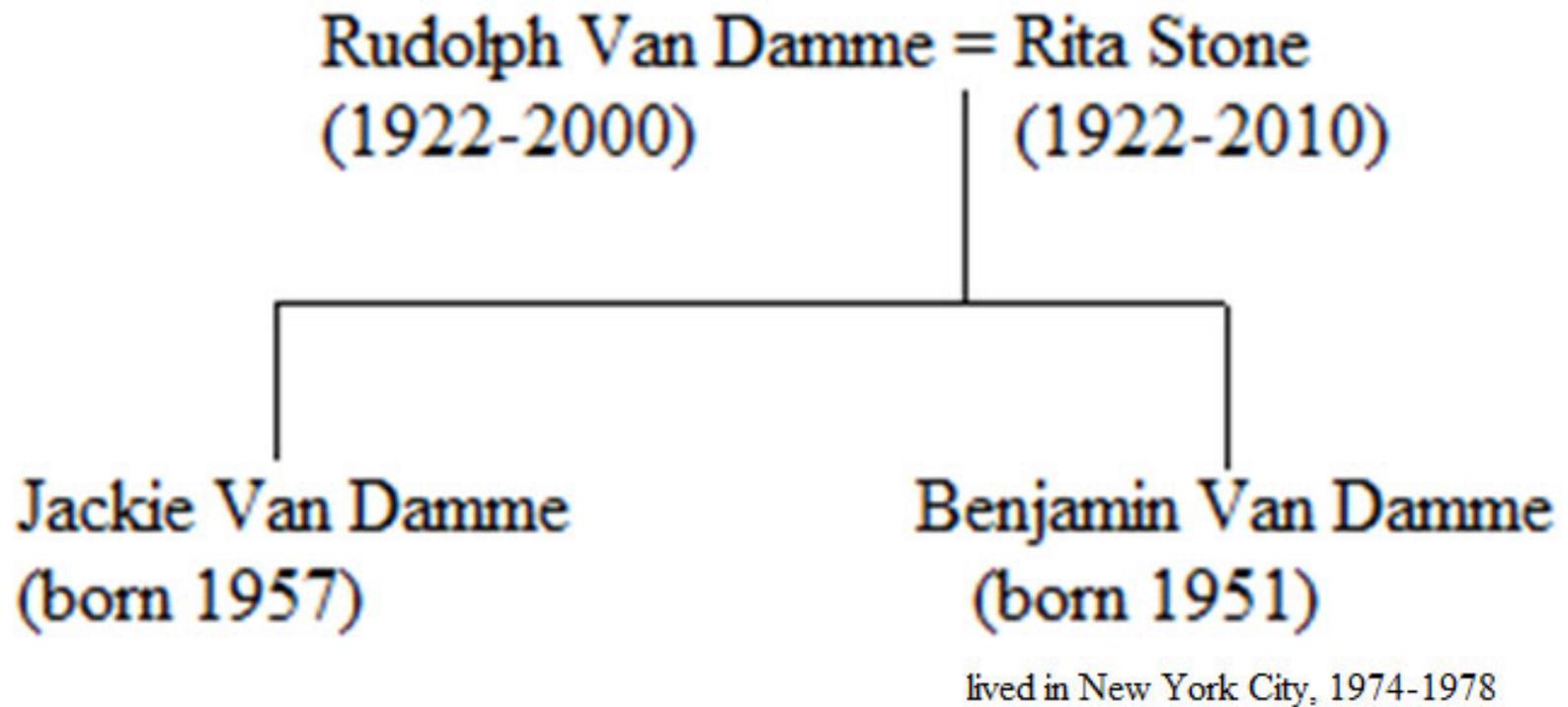
followed other children



And now Belgium!



Solution



Tip

Not every genetic
relative is inclined
toward a reunion

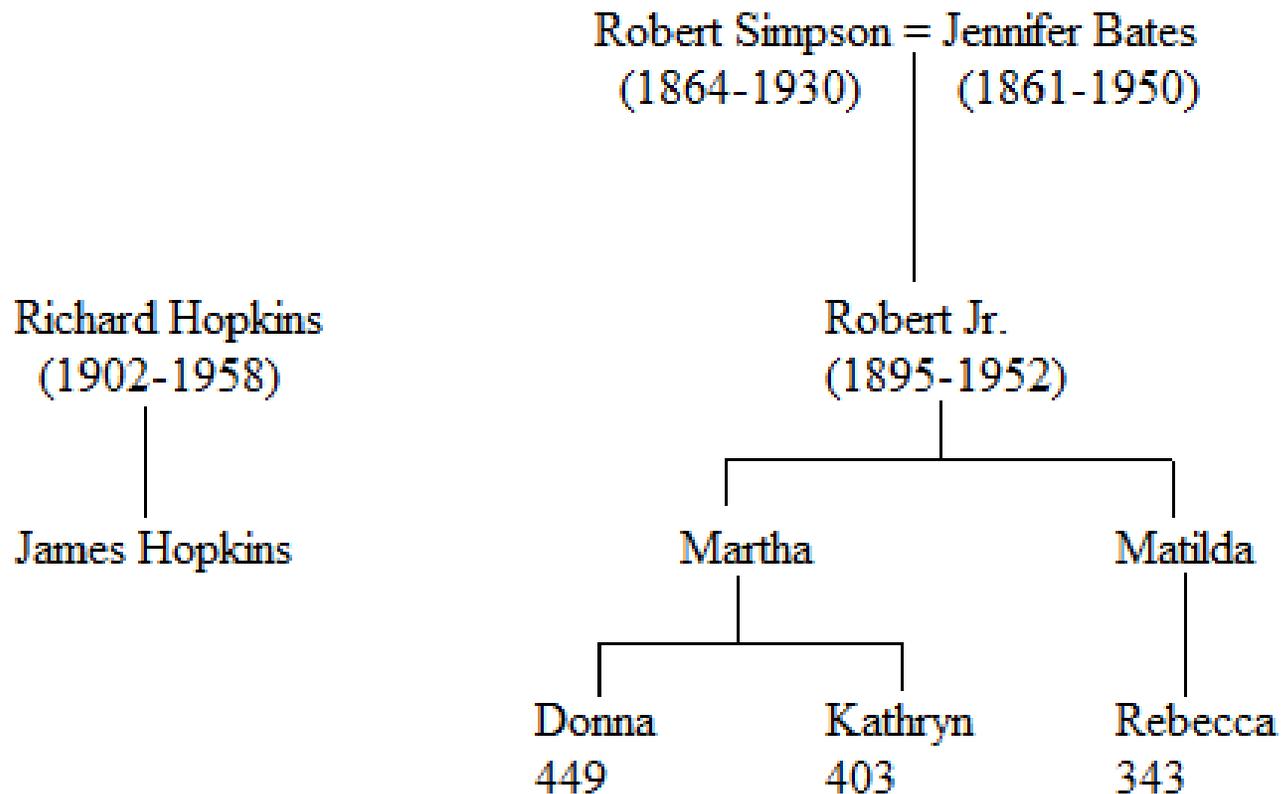
Reaching out to matches

- See if they are “active” on their account; if they are inactive, can you contact them another way?
- A match may be in touch with a biological parent; reaching out to the match may help or hinder your prospects of communicating with a biological parent
- Provide enough needed information and be specific on how they can help you
- There is no “one size fits all” response

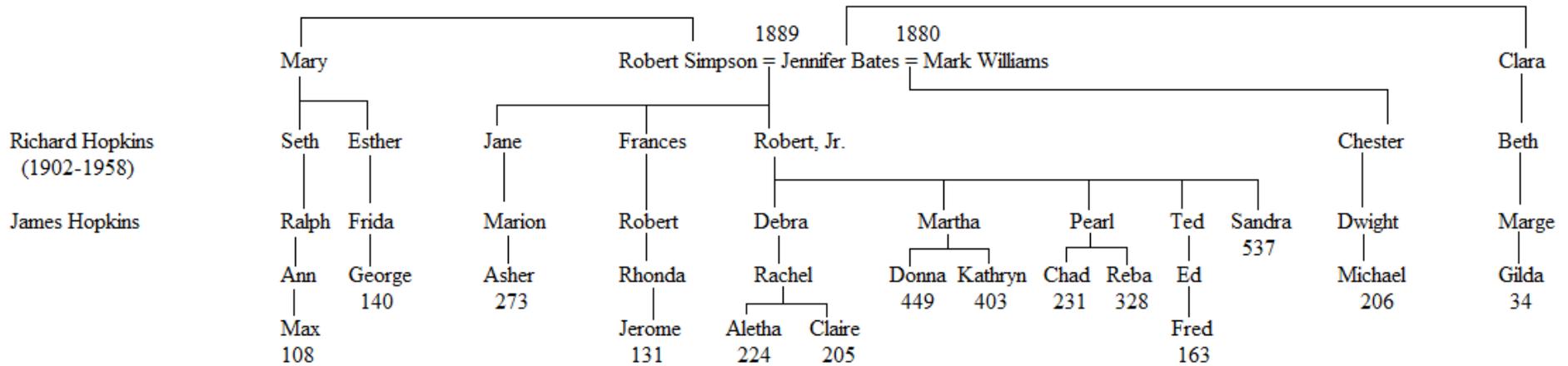
Son of an adopted “foundling”

- James’s father Richard was found in front of a police station in Boston in January 1902
- Richard dies in 1958
- No paper clues on biological heritage
- Richard’s only son James take a DNA test with Ancestry

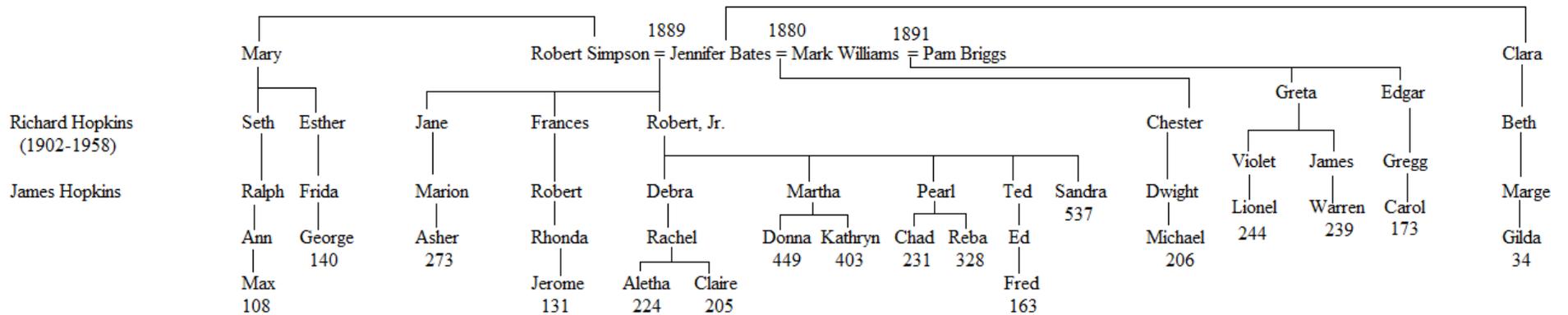
Simpson family of Framingham, MA



Charting out the matches further



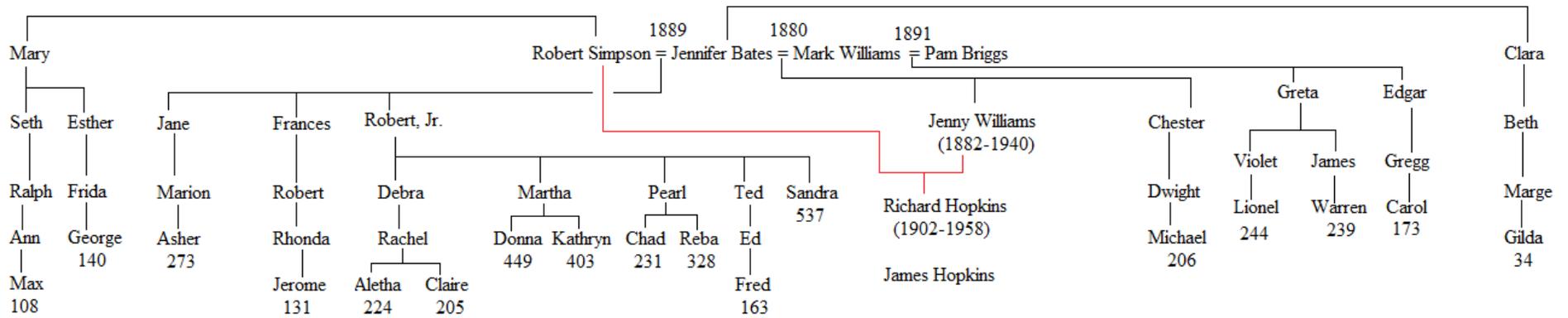
Descendants of Jennifer's first husband by his second marriage



Question

- How can someone be closely related to a woman and related closely to family members of BOTH her husbands?

The father is the mother's step-father



Tip

Do not assume to know the will of
the genetic and natural parents
and expect unusual circumstances



QUESTIONS?

Solving an adoption from 1914

- Jeff's grandmother was born in Kansas in 1914
- Adoption records identify mother, no father listed
- Grandmother deceased, but her son is still living
- Son takes test from Ancestry



Identifying the matches

2ND COUSIN

★ 	[redacted] (managed by Michael Ford) Possible range: 1st - 2nd cousins ? Confidence: Extremely High  Last logged in Jul 26, 2018	 No family tree	View Match
★ 	[redacted] Annabelle Harris Possible range: 2nd - 3rd cousins ? Confidence: Extremely High  Last logged in Dec 31, 2017	 481 people 	View Match
★ 	[redacted] Patricia Possible range: 2nd - 3rd cousins ? Confidence: Extremely High  Last logged in Mar 16, 2018	 No family tree	View Match
★ 	[redacted] (managed by [redacted]) Richard Possible range: 2nd - 3rd cousins ? Confidence: Extremely High  Last logged in 3 days ago	 454 people	View Match
★ 	[redacted] Deborah Possible range: 2nd - 3rd cousins ? Confidence: Extremely High  Last logged in Mar 30, 2018	 21 people	View Match
★ 	[redacted] Jason Mitchell Possible range: 2nd - 3rd cousins ? Confidence: Extremely High  Last logged in Jul 8, 2018	 7,629 people  	View Match

Group One – The Youngs (2)



Patricia **Patricia**

Possible range: 2nd - 3rd cousins ?

Confidence: Extremely High

Last logged in Mar 18, 2018

No family tree

[View Match](#)



Deborah **Deborah**

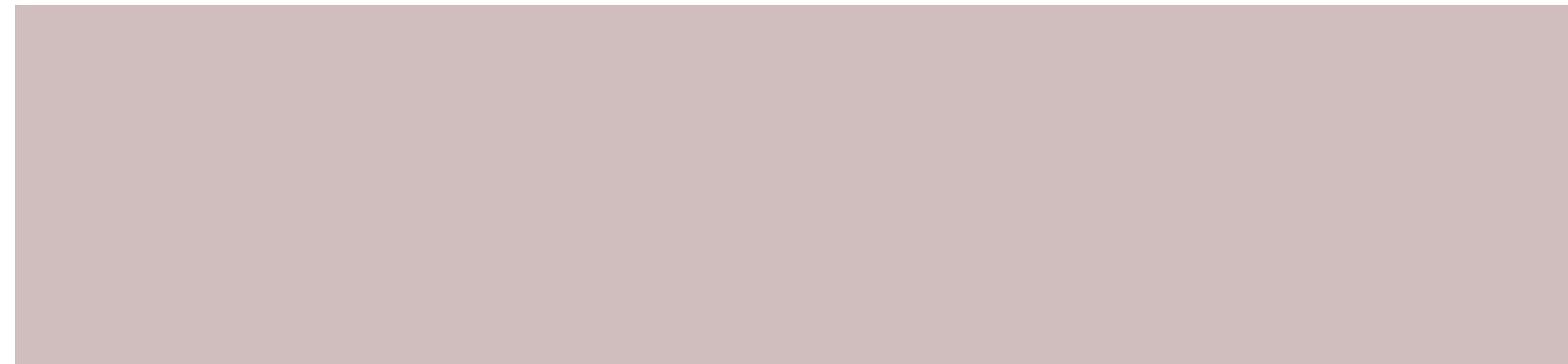
Possible range: 2nd - 3rd cousins ?

Confidence: Extremely High

Last logged in Mar 30, 2018

21 people

[View Match](#)



Group Two – The Records (1)



(managed by ...) **Richard**

Possible range: 2nd - 3rd cousins ?

Confidence: Extremely High

Last logged in 3 days ago

454 people

[View Match](#)

Group 3 – The Unknowns

2ND COUSIN



Michael Ford (managed by **Michael Ford**)

Possible range: 1st - 2nd cousins ?

Confidence: Extremely High

Last logged in Jul 28, 2018

No family tree

[View Match](#)



Annabelle Harris

Possible range: 2nd - 3rd cousins ?

Confidence: Extremely High

Last logged in Dec 31, 2017

481 people

[View Match](#)



Jason Mitchell

Possible range: 2nd - 3rd cousins ?

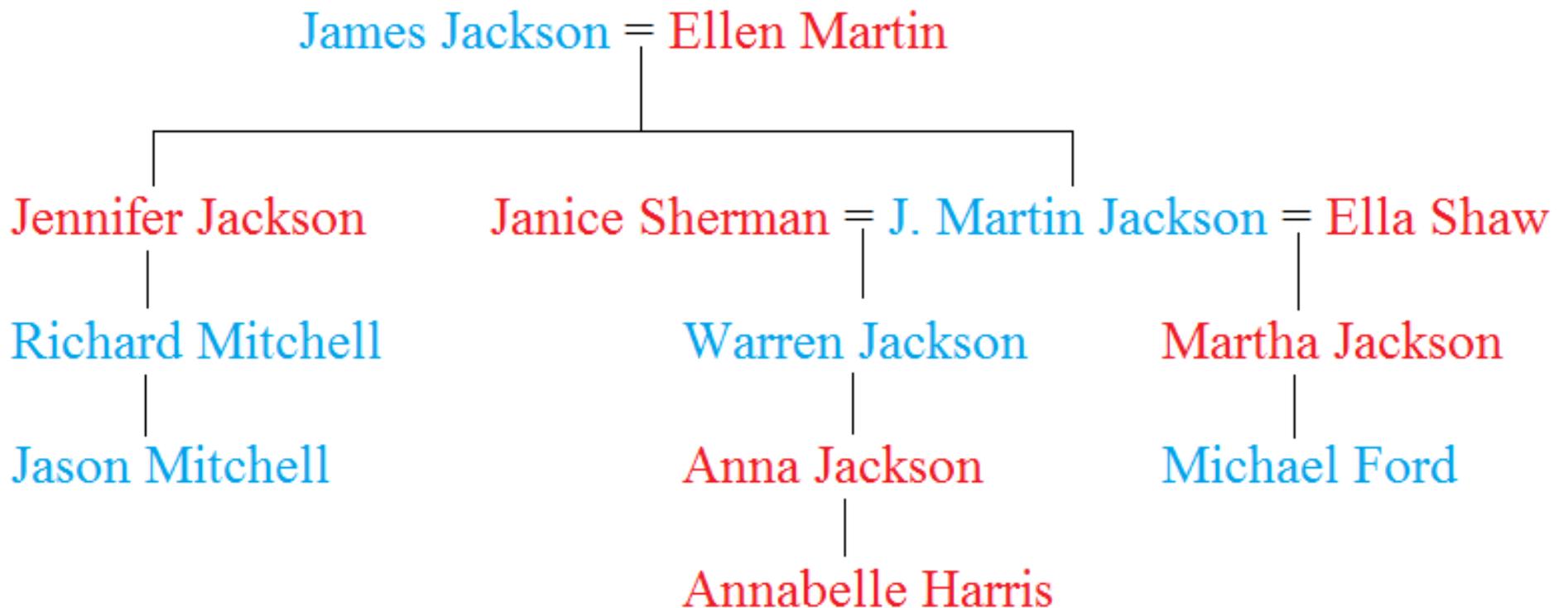
Confidence: Extremely High

Last logged in Jul 8, 2018

7,629 people

[View Match](#)

The “Jackson” family of the Midwest

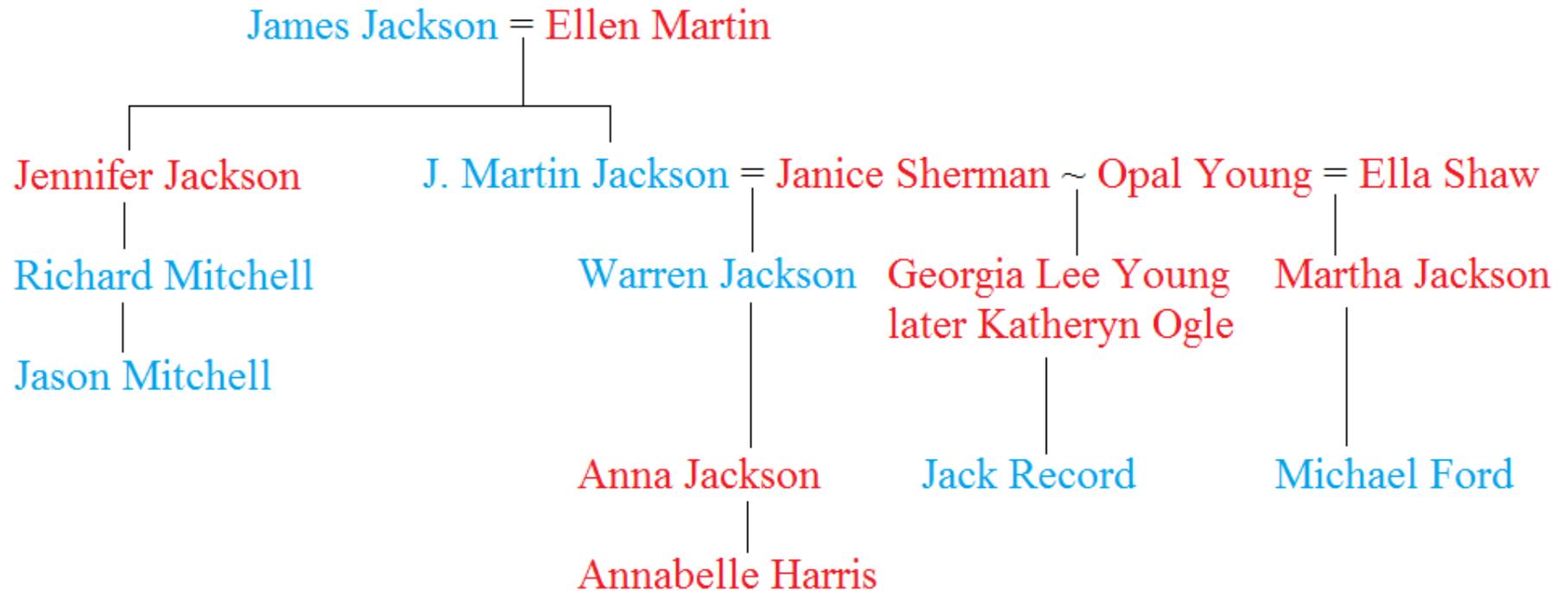


J. Martin Jackson

- From a state bordering Kansas, hundreds of miles away
- Father died young, had one full sister, and three younger half brothers (too young to father children)
- Divorced, lived in El Dorado, KS from 1911 to 1918 where he met his second wife in 1917 and returned to his home state by 1920



“clean” conclusion



More Case Studies!

- American Ancestors Magazine
- Vita Brevis blog
- The Genetic Genealogist
- Your Genetic Genealogist

Retired engineer George McKinney has been doing genealogical research for 40 years. He founded and coordinates a 200+ member genealogy club in Santa Rosa, California, speaks periodically on genealogy research topics, and teaches beginning and intermediate courses for seniors. **Stephanie Southerland** has been involved with genealogy since she was 16, which means she's been trying to unravel the mysteries of her family for 52 years. She and two co-authors spent sixteen years researching their book, *The Wilhelm and Krieg Families of Huntington County, Indiana* (1998).

genetics & genealogy

Searching for a Common Ancestor: A Smithhart/McKinney Case Study

A common result from that two individuals of thus confirming their known common ancestor in some cases a DNA test not suggest a common ancestor further research is the forebear. This is one such case. DNA Lucille (Christina) Stephanie (Smith) were second to their family tree. A common ancestor following the following a gene repetition: Step 1: Examine candidates probable of an appropriate Step 2: Look DNA map Stephanie specific Step 3: genealogical find p Step 4: hypo Step 5: Lucille relates (DNA) seco the the ggc

Lambert DNA Relatives

John Lambert (died 1838) (purchased land 1799)
 John Lambert (1709-1800)
 John Lambert of Clogherry
 Patrick Lambert (1823-1894) (d. Albany 1836) of Schaghticoke, N.Y.
 James A.G. (1848-1928)
 George D. ca. 1820
 John (in Clogherry 1802)
 James A.G. (1847 - after 1954)
 George Richard (1860s)
 John (1872-1938) of Brooklyn, N.Y.
 James A.G. (1847 - after 1954)
 George Richard (1860s)
 Harry Clifford (1900-1988)
 James Charles (1900-1990)
 David Allen #26660
 Garnet #191529
 James C. #202945
 Michael James #66523
 John James (1886-1915)
 James John (1924-2011)

For markers for each kit, visit chomps.northwestern.edu/lambert/dna/relat.htm.

SNP is added to the ISOGG tree. I also have a 67-marker match to Michael Lambert ancestor, Patrick Lambert, married in 1838 at St. Conick's Catholic parish, Killenure, Ireland, and had four children baptised there, including Michael's ancestor James "Lampart," baptised April 16, 1845. Patrick Lambert's family immigrated to the United States and settled in Schaghticoke, Rensselaer County, by the time of the 1855 New York State census. James Lambert later settled in Idaho, Kilkenny (in Ireland) and Clogherry (in Northern Ireland) are only 200 miles apart, so the exact residence of the common Lambert ancestor is uncertain. Although I have not confirmed the exact Irish origin of the elder John Lambert of Nova Scotia, finding genetic matches of two American Lambert immigrants from different parts of Ireland is promising. James C. Lambert, Kathleen Lambert (wife of Michael), and I seek agrate descendants of other Irish Lamberts for additional testing. I recently created a Facebook group, "Lambert families of Ireland," to recruit and reunite descendants of Lambert's in Ireland via social media. Someday I hope to visit the exact place in Ireland from which Lambert immigrated more than two hundred years ago.

Notes
 The father of the latter John Lambert was another John Lambert.
 For information on these SNPs, see loggy.org/Tree/SOGG_VNA_SNP_Indo.html.

David Allen Lambert with Garnet Lambert of Halifax, Nova Scotia: a fragment of the 1892 St. Pierre census record for James Albert Lambert.

RECHERCHES DE 1891
 BUREAU D'INDIVIDUALITE

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Review

1. DNA testing makes the most sense if you or a parent is adopted or you have an unknown parent or grandparent and the likely ancestry is within the United States
2. Generations further back and in other geographical areas are not impossible, but may require more patience

Review

1. Get your most senior generation to test
2. Test known parts of the family to rule matches out (if a second-generation adoption or more)
3. Try to have results in all DNA databases
4. Go through shared matches and sort possible ancestral couples
5. Patience, patience, patience

Final Thoughts

- Likelihood of finding biological family in the United States is much greater today based on the number tested participants
- Some people only learn they are adopted or have a misattributed parentage from these tests
- Finding a relative you knew that was given up for adoption can be more challenging

QUESTIONS?

Hire Research Services

research@nehgs.org

Chat with a Genealogist

AmericanAncestors.org/chat

Search

Events

Membership

Give

Publications

Expert Help

Tools

Signature Projects

Centers & Initiatives

DNA in Practice: Leveraging DNA Results in Your Family History Research

Thank you for registering for the online course, *DNA in Practice: Leveraging DNA Results in Your Family History Research!*

DNA testing has been a transformative tool for genealogists—allowing you to confirm hypotheses, meet distant cousins, and solve some family mysteries. Depending on your goal, however, it can be difficult to determine which test or tests to utilize, how to interpret your results, understand how the results relate to your paper research, and how to keep your matches and research organized. Using several real-world case studies, this online course will demonstrate how to leverage autosomal, mitochondrial, and Y-DNA results effectively using a variety of tools and organizational methods.

This course includes four 90-minute classes and exclusive access to handouts and recordings of each presentation.

Join the Live Broadcasts

Click here to join the live broadcasts: <https://zoom.us/j/92596622175>

If you are unable to attend the live session, you will be able to watch a recording on this course page.

COURSE SCHEDULE

January 4 - Class 1: How to Plan a DNA Research Project

AmericanAncestors.org/dna-practice-leveraging-dna-results-your-family-history-research



THANK YOU!

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