

*Love Unity
Solidarity*



**BELNAP FAMILY
ORGANIZATION**



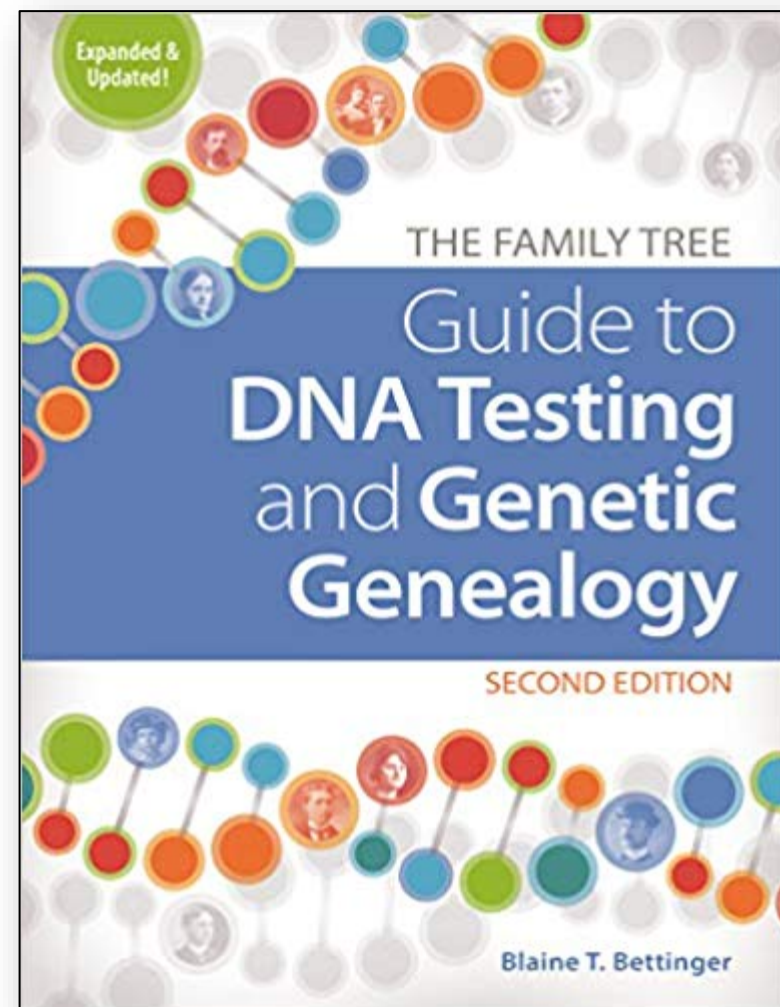
Family History and DNA

Ugo A. Perego, PhD

August 8, 2020

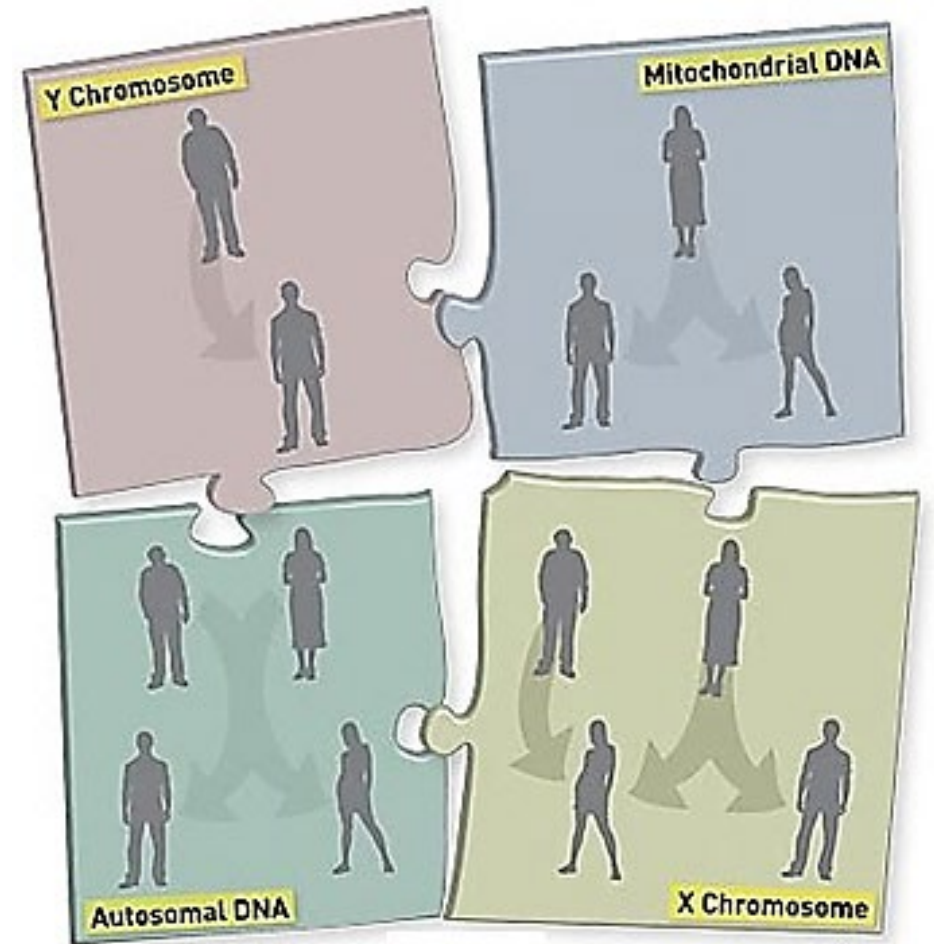


Blaine T. Bettinger



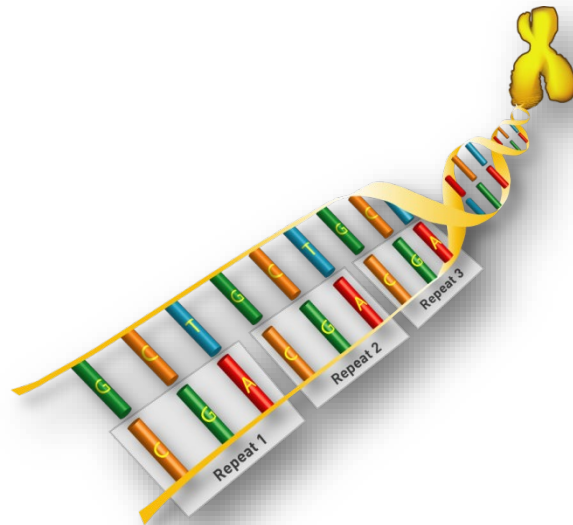
Genetic Genealogy 101

- Everyone has DNA
- We receive it from our ancestors
- The closer the relatives, the more DNA we share with them
- Four types of DNA for genetic genealogy



The Basics of Genetic Genealogy

The role of molecular genealogy is to assist traditional genealogy, not to replace it.



+

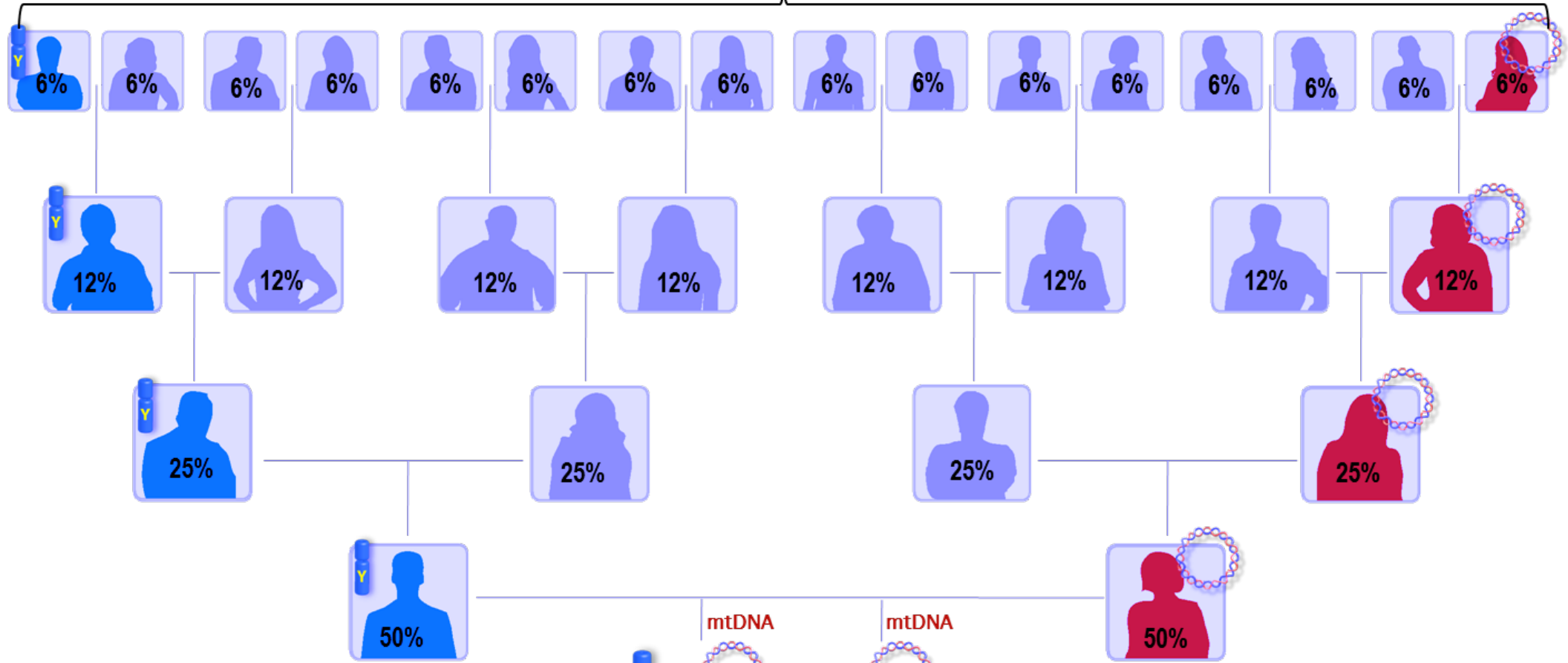


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The ability to ***extend*** genealogies further into the past with greater ***accuracy***.

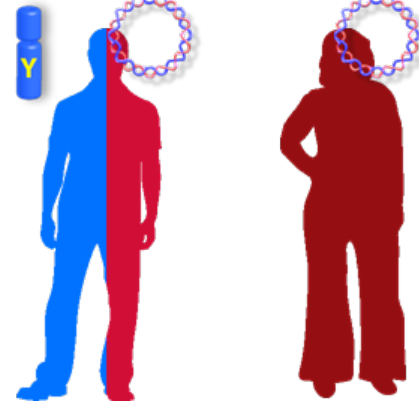


Autosomal DNA

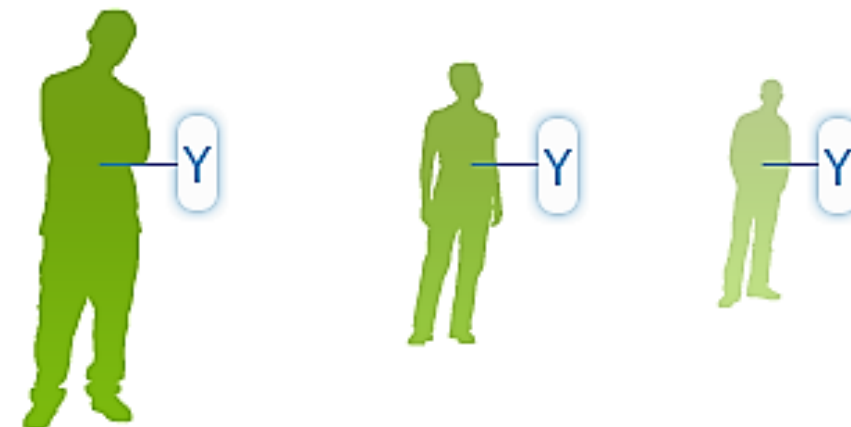
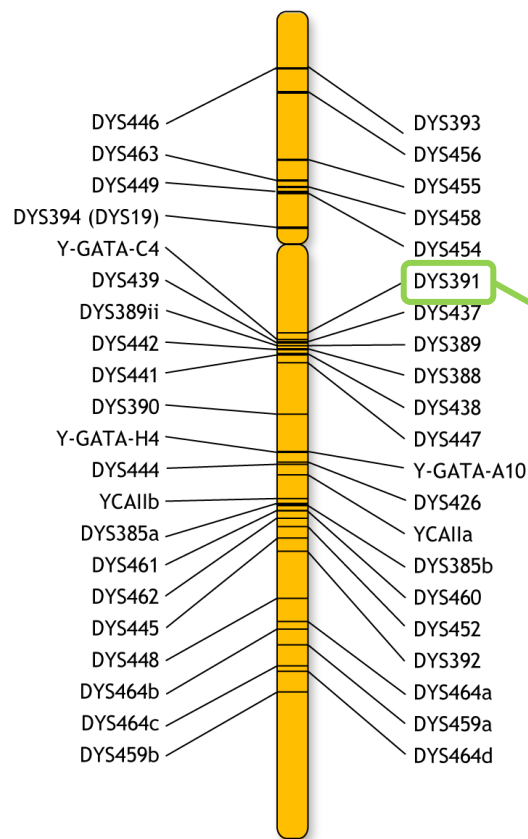


Y chromosome

Mitochondrial DNA



Y chromosome profile (haplotype)



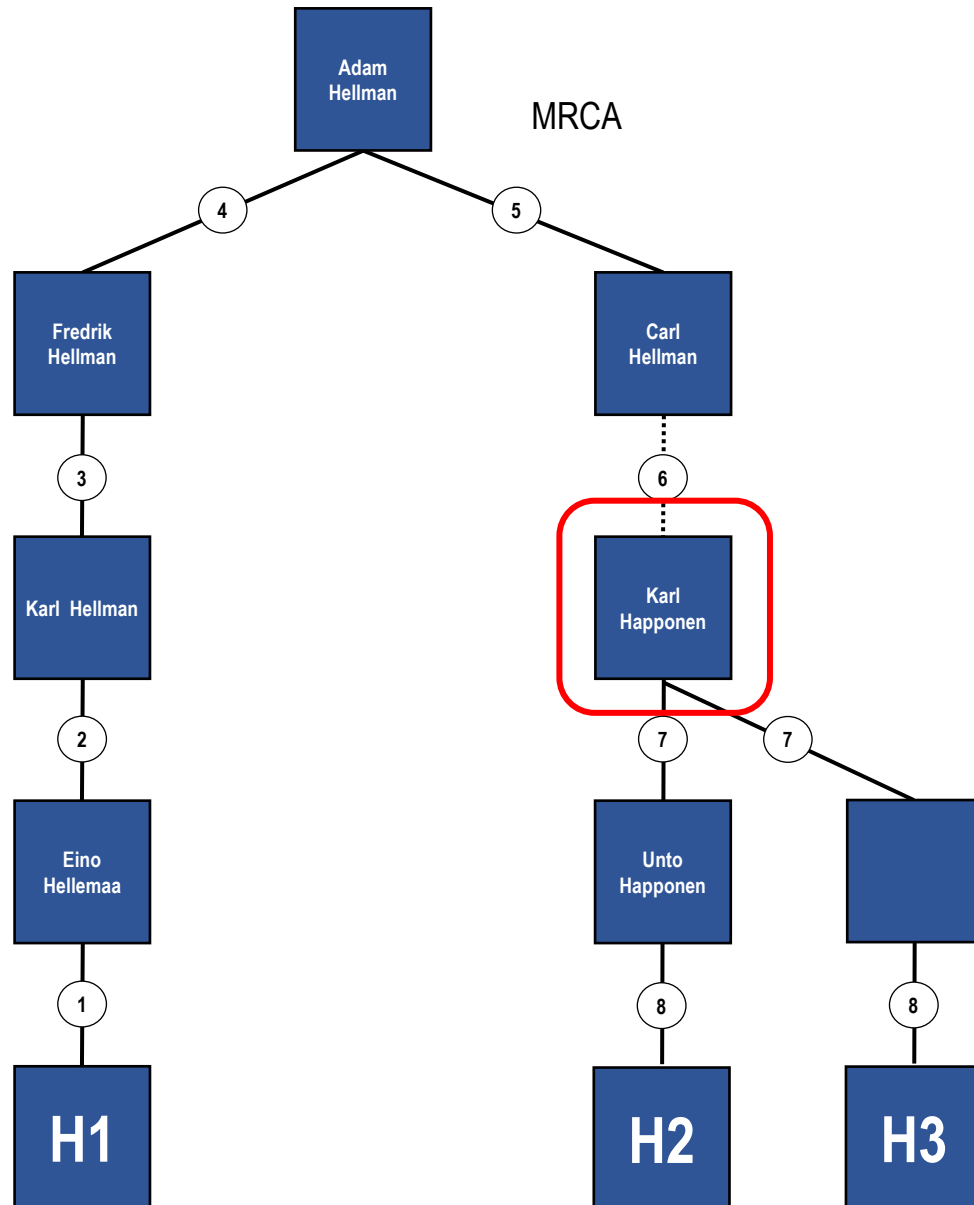
DYS391



TGTCTG/TCTA/TCTA/TCTA/TCTA/TCTA/TCTA/TCTA/TCTA/TCTA/TCTGCCT

Result	Pedigree	TMRCa	Matches	DYS393	DYS390	DYS394/19	DYS391	DYS385	DYS426	DYS388	DYS439	DYS389I	DYS392	DYS389II	DYS458	DYS459	DYS455	DYS454	DYS447	DYS437	DYS448	DYS449	DYS464	DYS460	GATA H4.1	YCAII	DYS456	DYS442	DYS438	DYS444	DYS446	DYS461	DYS462	YGATAA10	DYS635	GGAAT1B07	DYS441	DYS445	DYS452	DYS463	
				13	24	14	10	11 14	12	12	12	13	13	29	17	9 10	11	11	25	15	19	29	15 16 17	11	11	19	15	12	12	12	12	13	12	11	13	23	10	13	12	30	24

A family history mystery solved through Ycs





Carl
Hellman

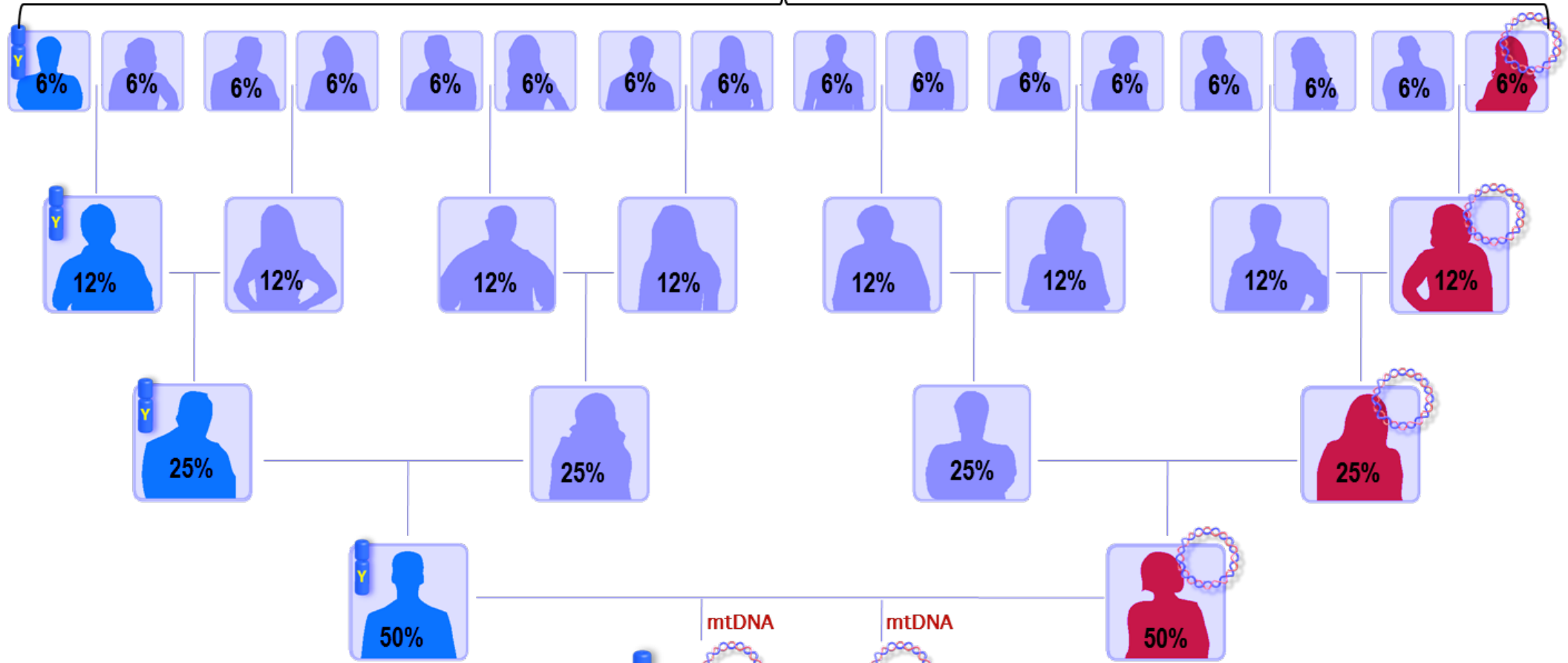


Kalle
Happonen

Ugo Perego, *Family Chronicle*, Nov/Dec 2009, pp.42-44

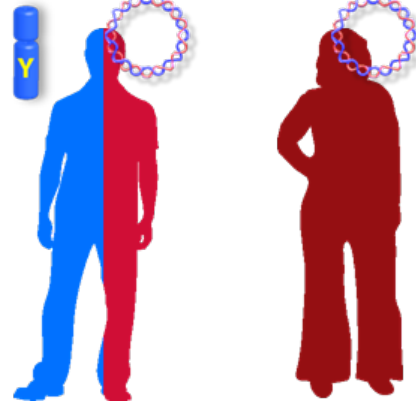
ISFG Standards (SMGF.org)	Juhani Happonen	Kaisa's Cousin	Pekka Hellamaa	Adam Hellman Inferred Haplotype
DYS19	14	14	14	14
DYS385a	14	14	14	14
DYS385b	14	14	14	14
DYS388	14	14	14	14
DYS389I	12	12	12	12
DYS389II	28	28	28	28
DYS390	23	23	23	23
DYS391	10	10	10	10
DYS392	11	11	11	11
DYS393	13	13	13	13
DYS426	11	11	11	11
DYS437	16	16	16	16
DYS438	10	10	10	10
DYS439	10	10	10	10
DYS441	17	17	17	17
DYS442	17	17	17	17
DYS444	13	13	13	13
DYS445	11	11	11	11
DYS446	13	13	13	13
DYS447	23	23	23	23
DYS448	20	20	20	20
DYS449	30	30	30	30
DYS452	31	31	31	31
DYS454	11	11	11	11
DYS455	8	8	8	8
DYS456	14	14	14	14
DYS458	18	18	17	17 or 18
DYS459a	8	8	8	8
DYS459b	9	9	9	9
DYS460	10	10	10	10
DYS461	12	12	12	12
DYS462	14	13	13	13
DYS463	21	21	21	21
DYS464a	12	12	12	12
DYS464b	14	14	14	14
DYS464c	15	15	15	15
DYS464d	15	15	15	15
GGAAT1B07	11	11	11	11
Y-GATA-A10	15	15	15	15
Y-GATA-C4	22	22	22	22
Y-GATA-H4.1	20	20	20	20
YCAIIa	19	19	19	19
YCAIIb	21	21	21	21

Autosomal DNA



Y chromosome

Mitochondrial DNA



Mitochondrial DNA profile (haplotype)

Your test results for the range 16024 to 16569 and 1 to 576 are:

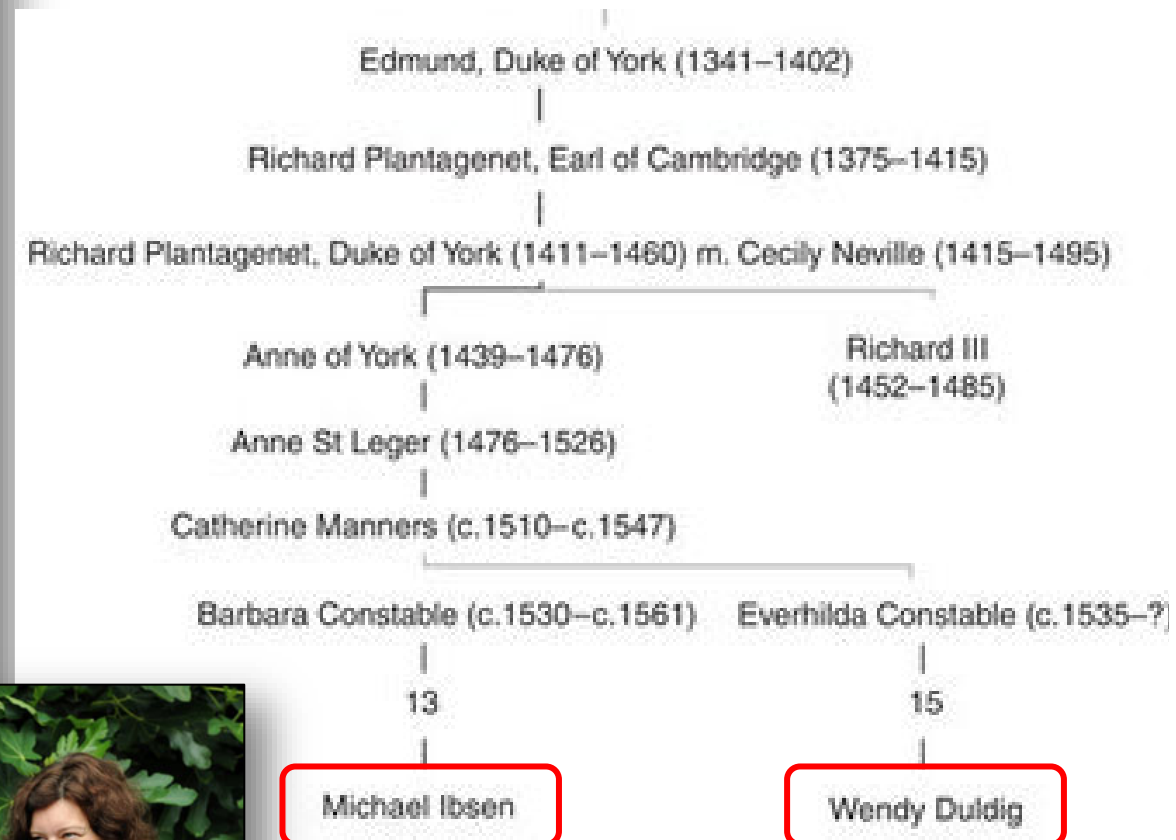
location	16224	16311	16519	73	189	195	263	315.1	497
your sequence	C	C	C	G	G	C	G	C	T
reference	T	T	T	A	A	T	A	--	C

HVR 1

HVR 2

Base Position	Ugo Perego	rCRS	Base Position	Ugo Perego	rCRS
73	G	A	9055	A	G
189	G	A	9698	C	T
195	C	T	10398	G	A
263	G	A	10550	G	A
315.1	C	:	11299	C	T
497	T	C	11467	G	A
750	G	A	11485	C	T
1189	C	T	11719	A	G
1438	G	A	11840	T	C
1628	T	C	12308	G	A
1811	G	A	12372	A	G
2706	G	A	13740	C	T
3107	:	N	14167	T	C
3480	G	A	14766	T	C
4769	G	A	14798	C	T
6260	A	G	15326	G	A
7028	T	C	16224	C	T
7948	T	C	16311	C	T
8860	G	A	16519	C	T

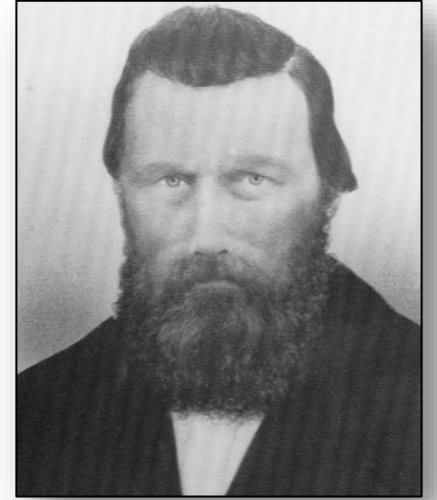
The case study of King Richard III



Haplogroup J1c2c

The paternity of Priscilla Klingsmith: a mtDNA case

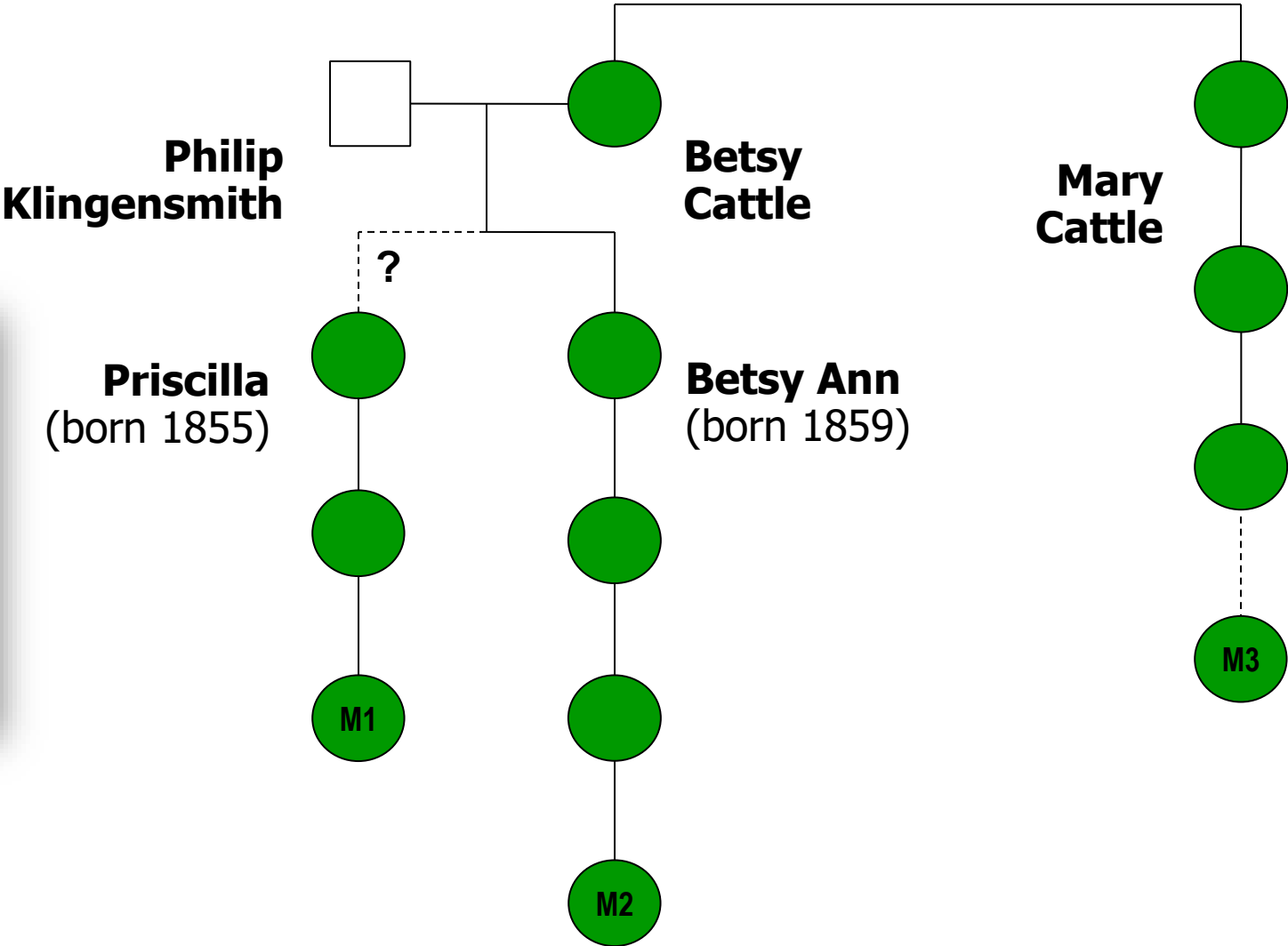
- September 7-11, 1857: Baker-Fancher Wagon Train from Arkansas to California
- Ca. 120 people killed in Southern Utah
- A small number of children were spared and given to local LDS families
- Seventeen were later identified by government authorities and returned to relatives in the Midwest
- Rumors of a little girl secretly kept by Bishop Philip Klingsmith, who grew to maturity and married a man named John Urie¹
- This woman was identified as Priscilla Klingsmith, born March 20, 1855



Philip
Klingsmith

¹ Juanita Brooks, *The Mountain Meadows Massacre*, pp.101-105

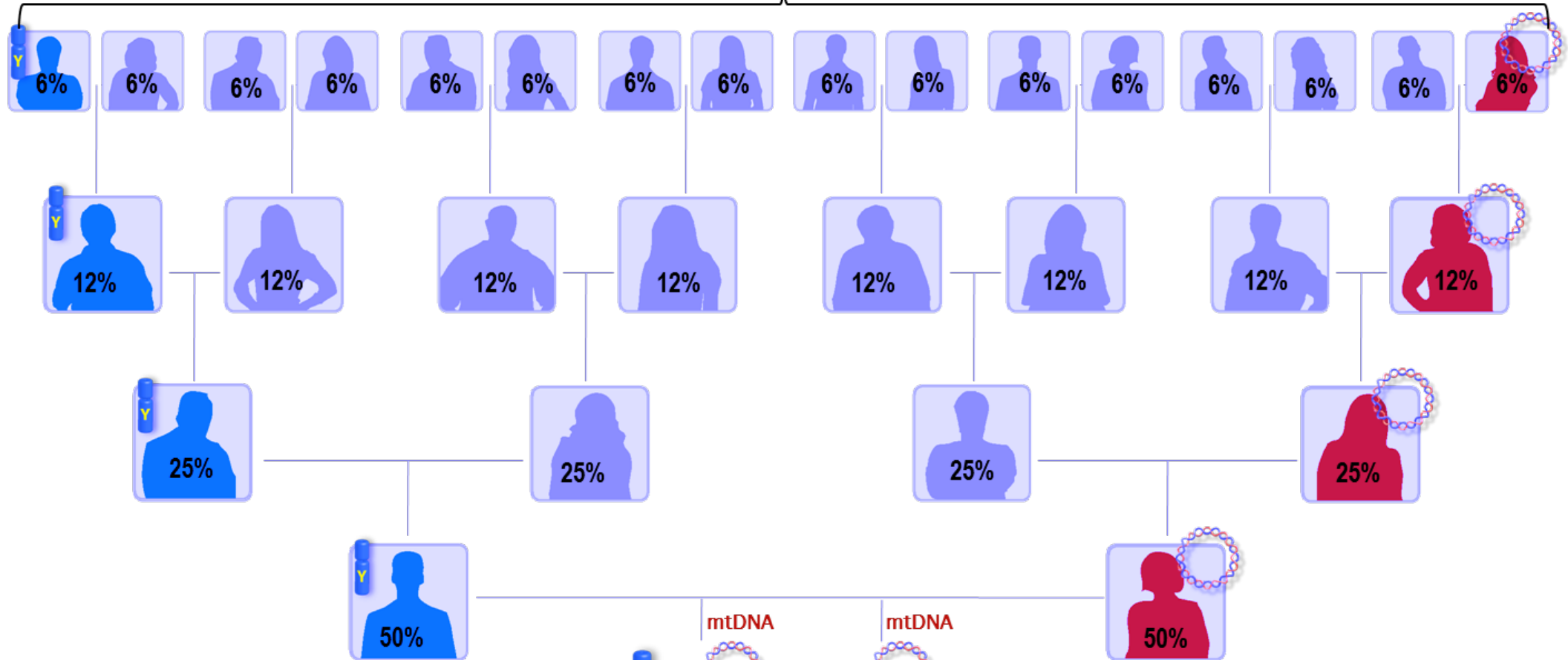
Priscilla Klingensmith's biological parentage?



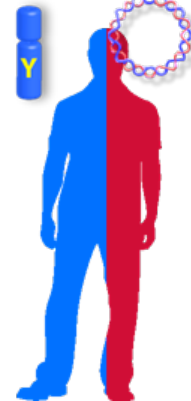
	HVR1				HVR2			
	16224	16311	16320	16519	73	146	152	263
CRS	T	T	C	T	A	T	T	A
M1	C	C	T	C	G	C	C	G
M2	C	C	T	C	G	C	C	G
M3	C	C	T	C	G	C	C	G

Priscilla Klingensmith Urie, Betsy Ann Klingensmith and Mary Cattle have the same uncommon mtDNA haplotype, thus confirming a possible shared maternal ancestry.

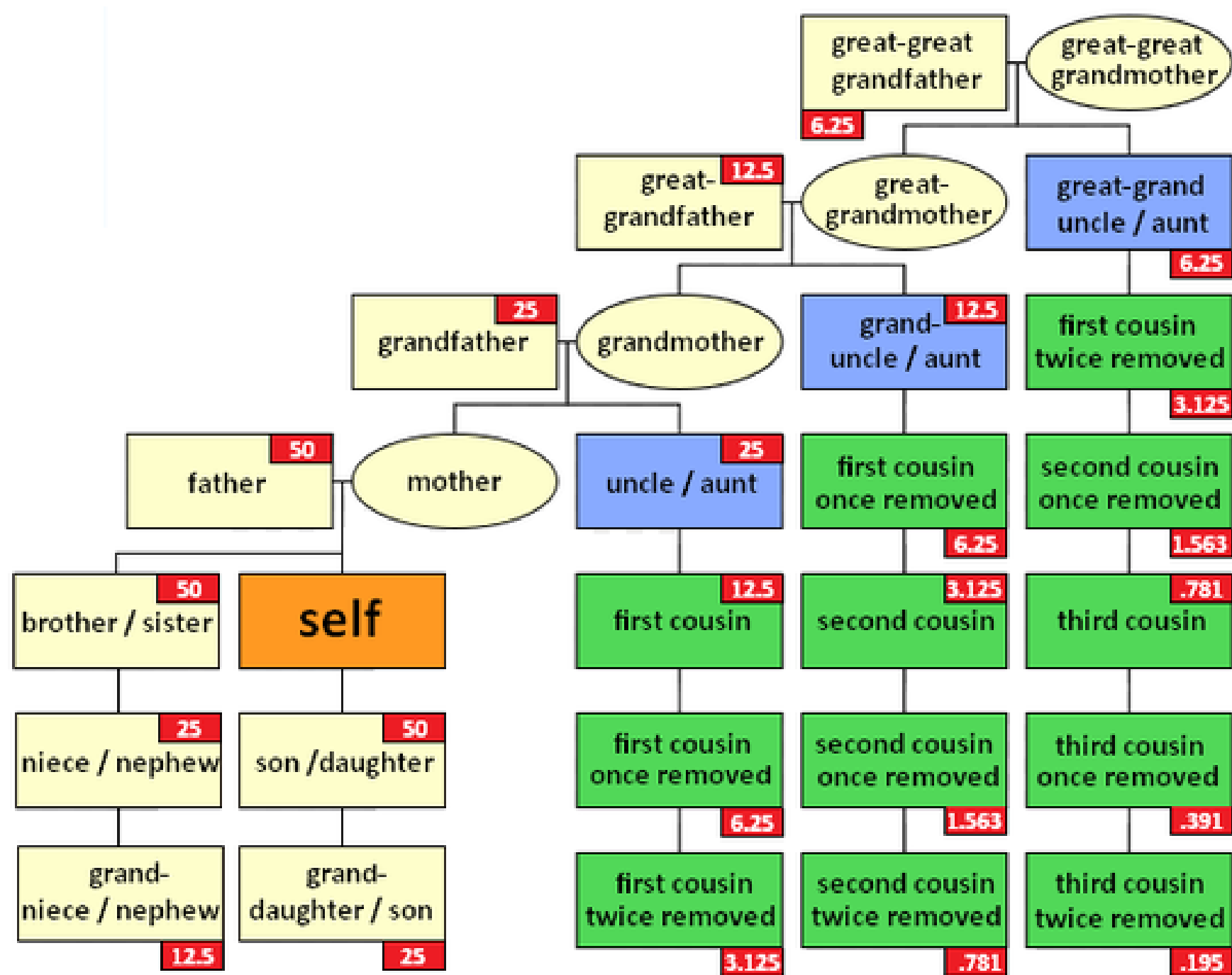
Autosomal DNA



Y chromosome



Mitochondrial DNA



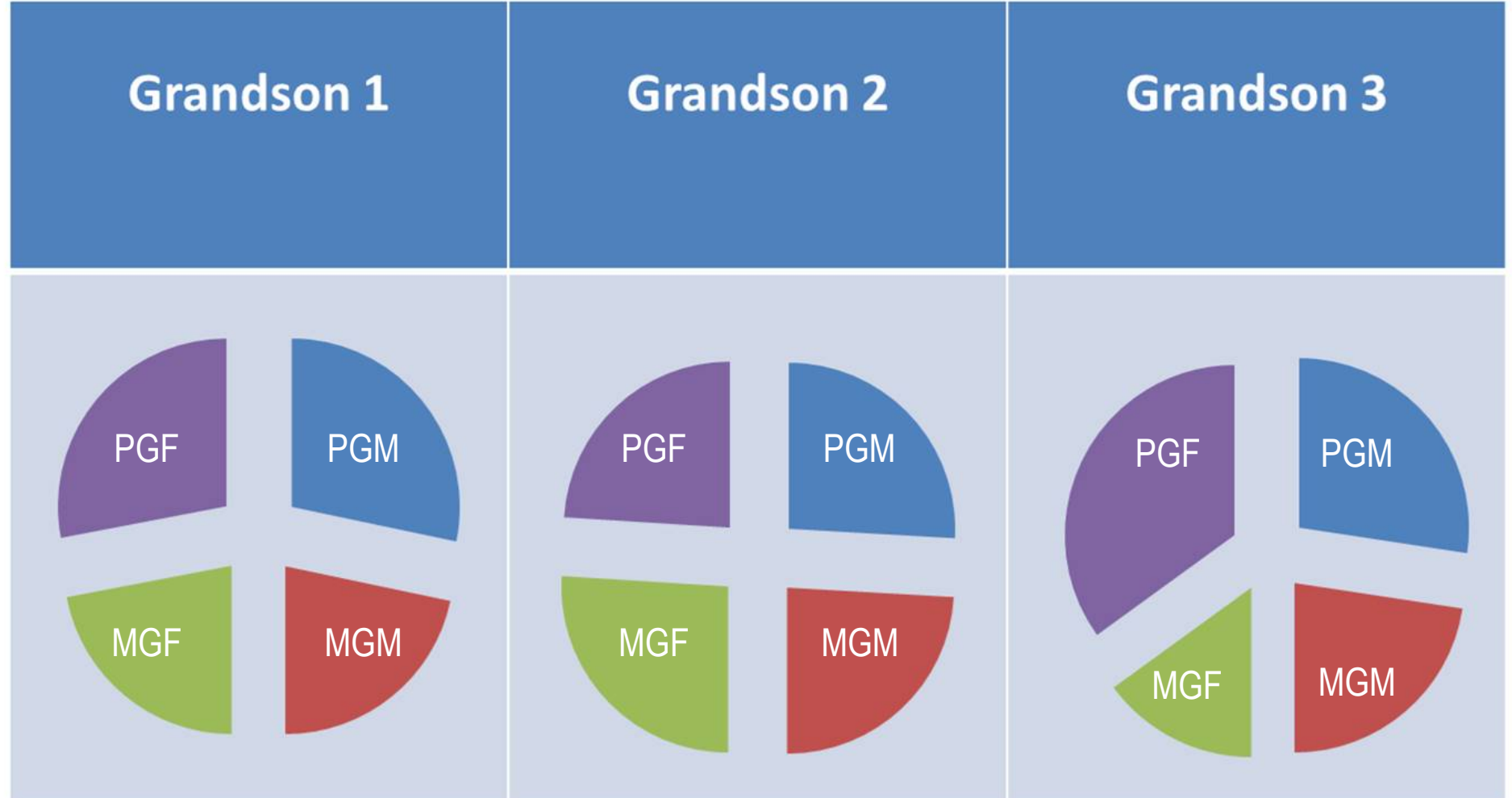
Inheritance of 3 brothers from 4 grandparents

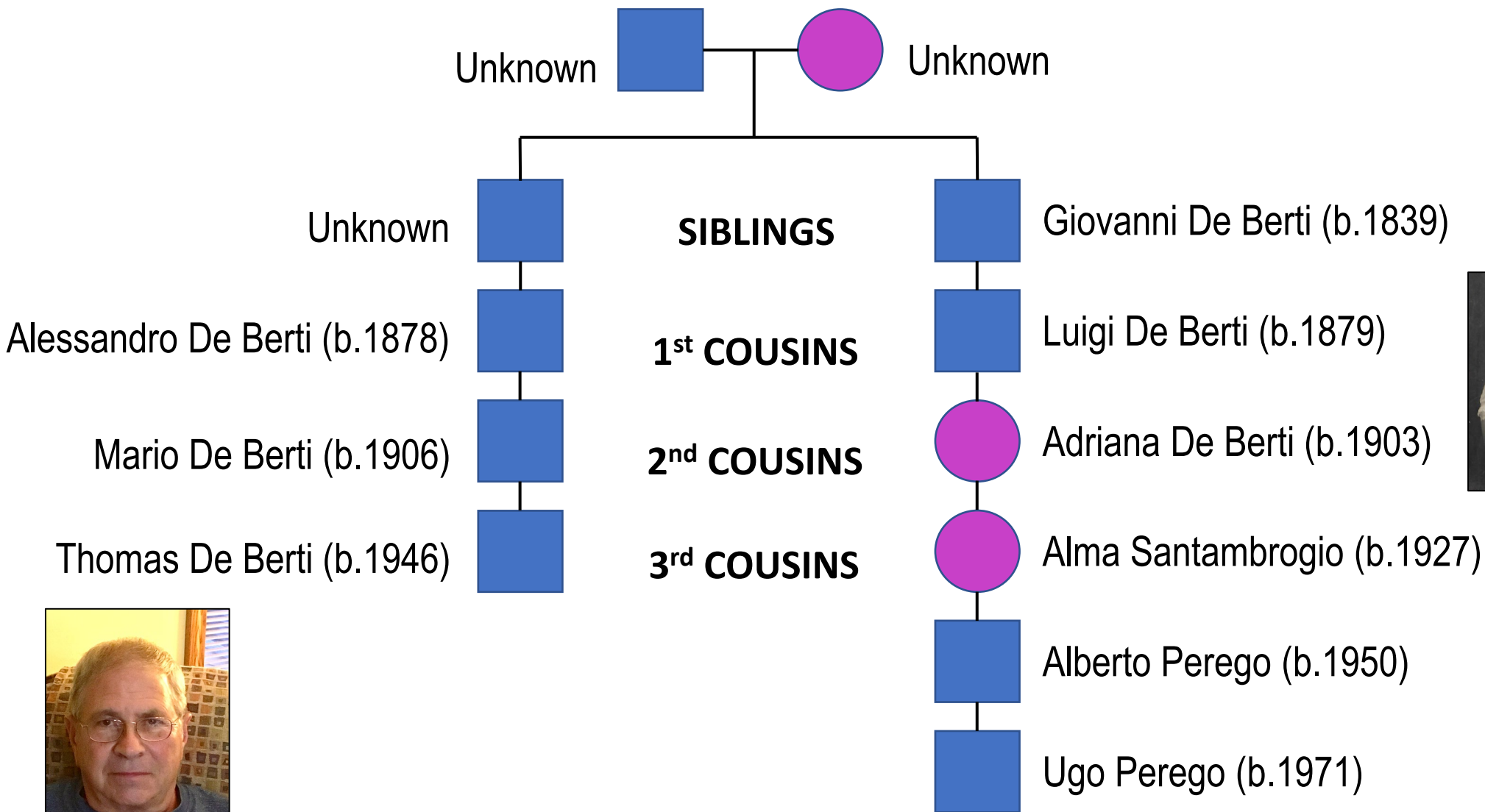
PGF =
Paternal
Grandfather

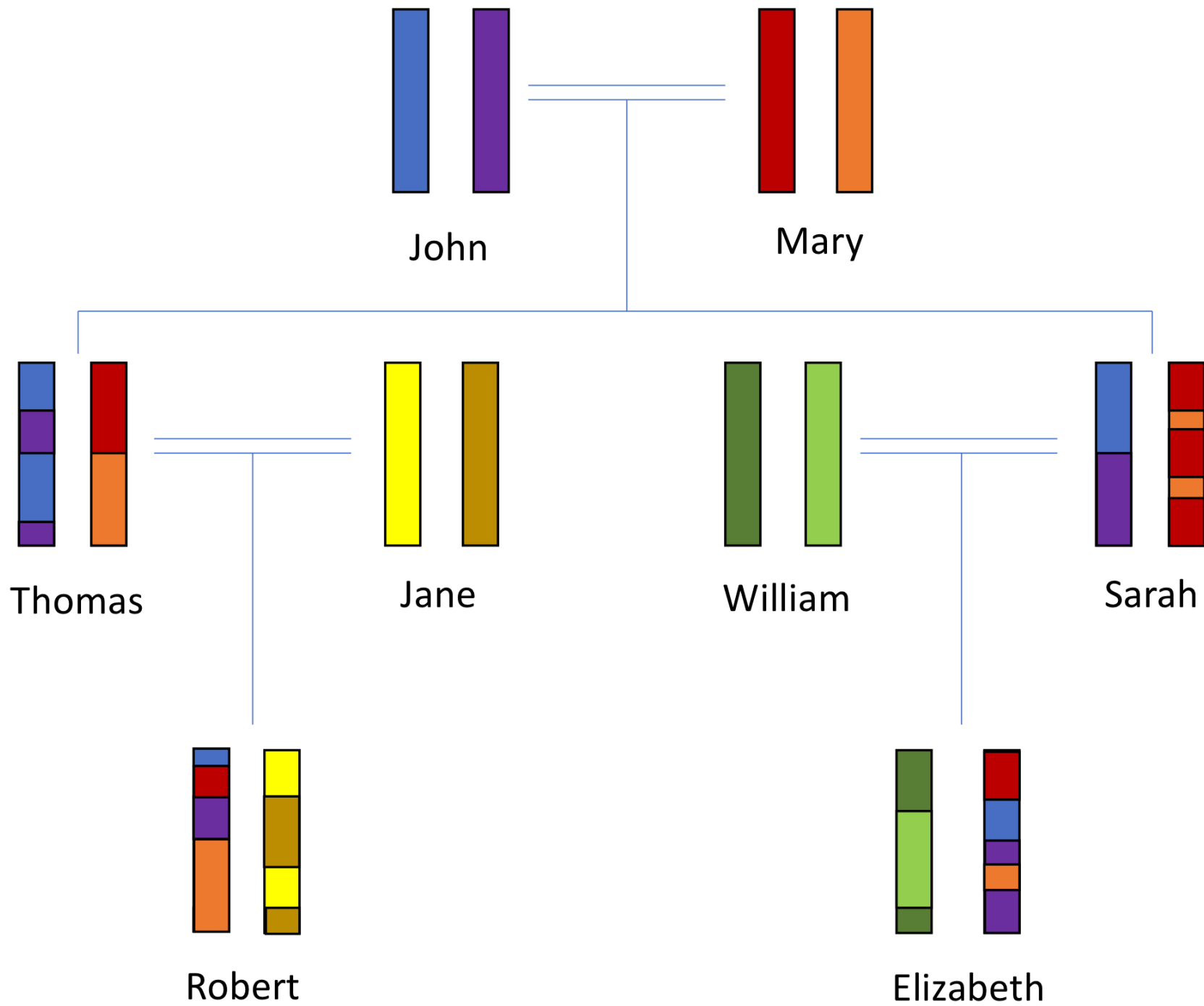
PGM =
Paternal
Grandmother

MGF =
Maternal
Grandfather

MGM =
Maternal
Grandmother







Autosomal DNA at Ancestry.com: R. Kirk Belnap



Hello, Robert

This test is shown to matches as KirkBelnap  Linked to Robert Kirk Belnap

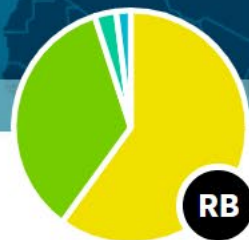
DNA Story

UPDATED RESULTS

Ethnicity Estimate

-  60% England, Wales & Northwestern Europe
-  35% Ireland & Scotland
-  2 Other regions

Discover the places, history, and cultures that shaped who you are today—using just your DNA.



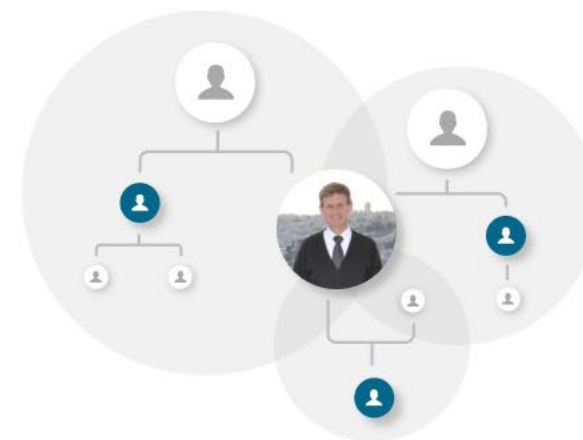
DNA Matches



 0 Starred matches


 1000+ 4th cousins or closer



ThruLines™






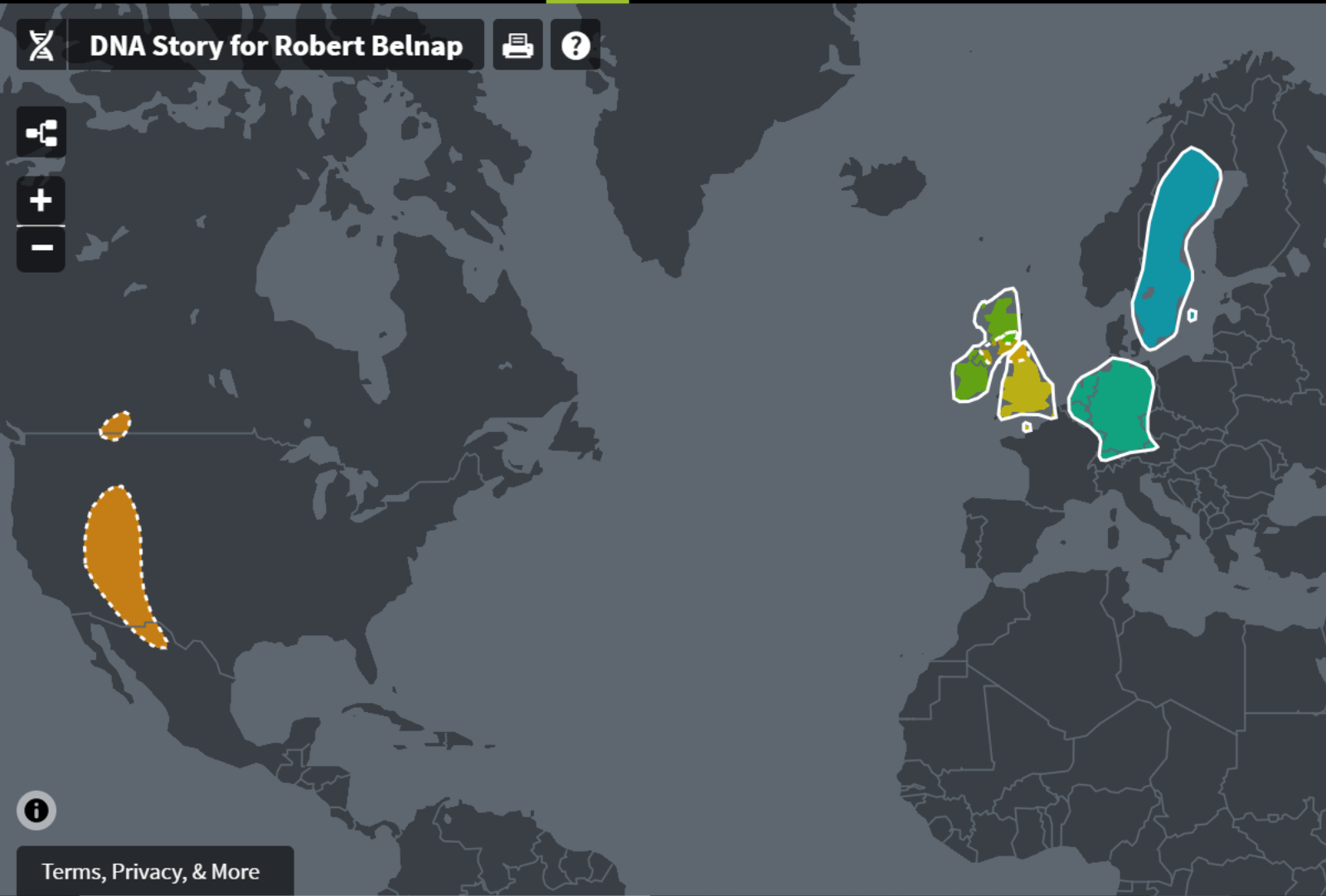
ThruLines uses Ancestry trees to suggest how you may be related to your DNA matches through common ancestors.

Autosomal DNA at Ancestry.com: Ethnicity

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 **DNA Story for Robert Belnap**  





Map showing highlighted regions: England, Wales & Northwestern Europe (yellow); Scottish Lowlands, Northern England & Northern Ireland (orange); Ireland & Scotland (green); Scottish Central Lowlands (light green); Germanic Europe (teal); Sweden (blue).


Ethnicity Estimate

 [Share](#)














-  **England, Wales & Northwestern Europe** 60% 
-  **Scottish Lowlands, Northern England & Northern Ireland** 
-  **Ireland & Scotland** 35% 
-  **Scottish Central Lowlands** 
-  **Germanic Europe** 3% 
-  **Sweden** 2% 

Additional Communities




















-  **Mountain West Mormon Pioneers** 
From your regions: England, Wales & Northwestern Europe; Irel...

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Autosomal DNA at Ancestry.com: Matches

Close Family			
 L.B. Managed by Beverly Belnap	Close Family–1st Cousin Shared DNA: 1,706 cM across 63 segments	 Unlinked Tree	 Add to group
 kathi Tomazin	Close Family–1st Cousin Shared DNA: 1,692 cM across 61 segments	 39 People  Common ancestor	 Add to group
1st Cousin			
 Pamalyn Blanks	1st–2nd Cousin Shared DNA: 1,141 cM across 47 segments	 Unlinked Tree	 Add to group
 Dennis Belnap	1st–2nd Cousin Shared DNA: 881 cM across 35 segments	 No Trees	 Add to group

Autosomal DNA at Ancestry.com: Matches

2nd Cousin				
 Jason Smith		1st-2nd Cousin Shared DNA: 604 cM across 36 segments	 1 People	 Add to group
 Michele True		1st-2nd Cousin Shared DNA: 582 cM across 37 segments	 7 People  Common ancestor	 Add to group
 dpzaot		1st-2nd Cousin Shared DNA: 552 cM across 26 segments	 No Trees	 Add to group
 Alan K Belnap		1st-2nd Cousin Shared DNA: 447 cM across 18 segments	 49 People  Common ancestor	 Add to group
 Zachary Blanks		1st-2nd Cousin	 No Trees	 Add to group

How are you and Alan K Belnap related?

Common Ancestors

According to Ancestry member trees, these are the common ancestors that connect you and Alan K Belnap. View a common ancestor to see the relationship path that connects you.

Alan K Belnap could be your 2nd cousin through:



Francis Marion Belnap

Great-grandfather

POTENTIAL ANCESTOR

[View Relationship](#)



Lillis Sabina Robinson

Great-grandmother

POTENTIAL ANCESTOR

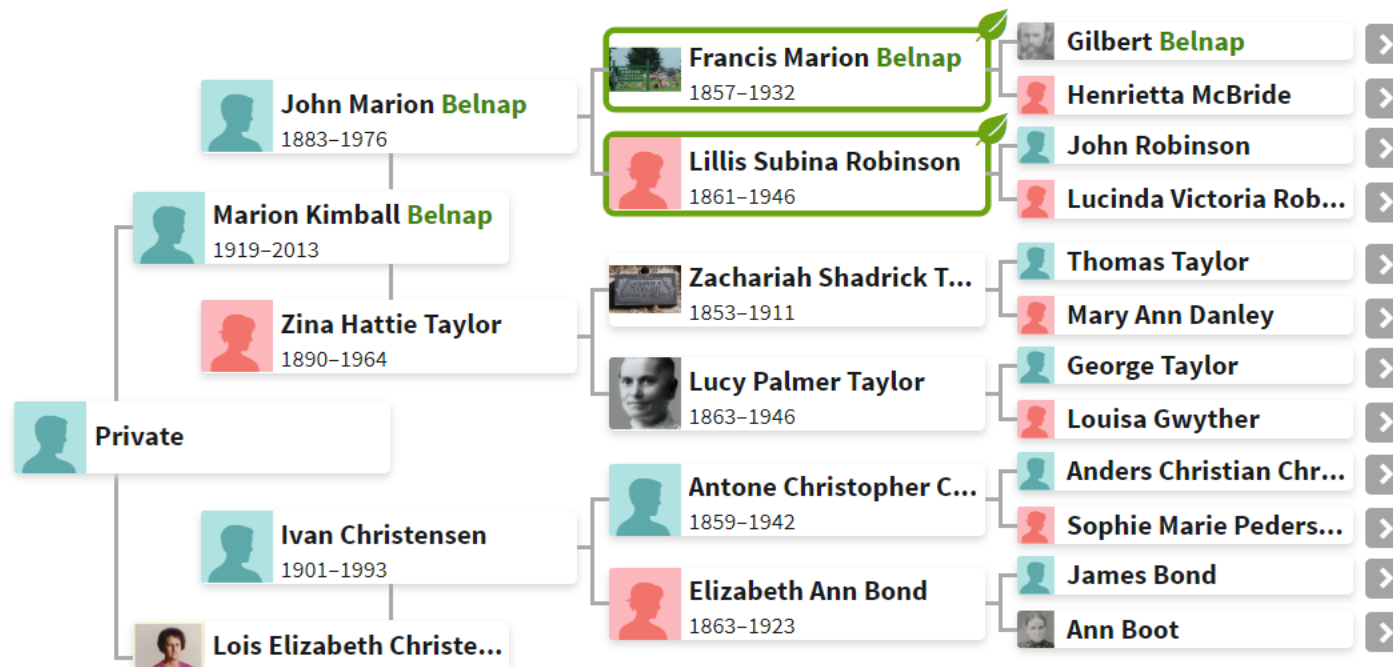
[View Relationship](#)

Belnap Family Tree

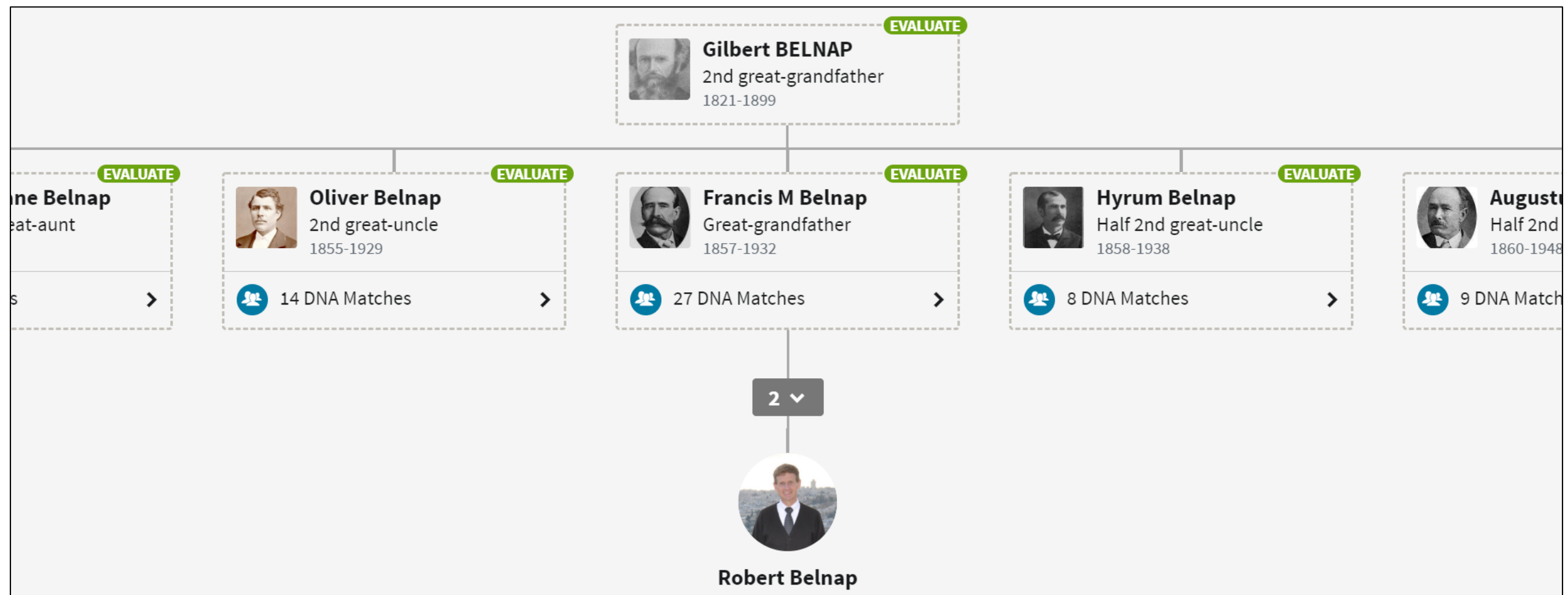
[Expand tree](#)

Alan K Belnap's Linked Tree 49 People

This is a preview of the public tree linked to Alan K Belnap's DNA results. Surnames that appear in both your tree and Alan K Belnap's tree are **marked in green**.



Autosomal DNA at Ancestry.com: ThruLines™





BELNAP FAMILY ORGANIZATION

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DNA Research

Information on Y-chromosome, mitochondrial, and autosomal DNA (deoxyribonucleic acid) research on the Belnap, Knight, and McBride families is available here:

Y-Chromosome (Y-DNA) Research:

Human cells have 23 pairs of chromosomes or DNA molecules, consisting of 22 pairs of autosomes and one pair of sex chromosomes. The Y-chromosome is one of two sex chromosomes on the 23rd pair of human chromosomes. (The other is the X-chromosome.) The Y-chromosome is the sex-determining chromosome, since it is the presence or absence of the Y-chromosome that determines the male or female sex of offspring from sexual reproduction. Only males have a Y-chromosome, because women have two X chromosomes in their 23rd pair of chromosomes.

A Y-chromosome DNA test ("Y-DNA test") is a DNA test often used to confirm through the science of genetic testing a male's patrilineal or direct father's-line ancestry. The Y-chromosome, like a patrilineal surname, passes down usually unchanged from father to son. However, occasional mistakes or "mutations" in the DNA replication or copying process of the Y-chromosome occur. Such mutations can be used to estimate the time frame in which the two individuals share a most recent common ancestor or "MRCA." Test results that are a perfect or nearly perfect match with others indicate biological relationship within recent genealogical time. Two matched persons can use their genetic