

# Identification of Susan Lund as Ina Jane Doe 1993

Redgrave Research  
Forensic Services

March 11 2022



**27 Jan 1993**

Ina Jane Doe found at  
Rend Lake IL

**Feb 2021**

Dr. Amy Michael  
approaches Jefferson  
County SO to suggest  
reanalysis of remains

**3 Feb 2022**

Astrea Forensics  
completes whole  
genome sequencing  
RRFS uploads DNA data  
to GEDmatch

**9 Feb 2022**

Family contacted by  
JCSO

Academic paper on Ina  
Jane Doe's possible  
torticollis published, art  
reflects these findings

**Jul 1996**



**18 Jan 2022**

RRFS announces  
involvement in Ina Jane  
Doe case; new forensic  
image by Carl Koppelman  
released



**4 Feb 2022**

RRFS locates Susan Lund  
as candidate for  
identification

**6 Mar 2022**

One to one DNA  
comparison confirms that  
Ina Jane Doe is Susan  
Lund

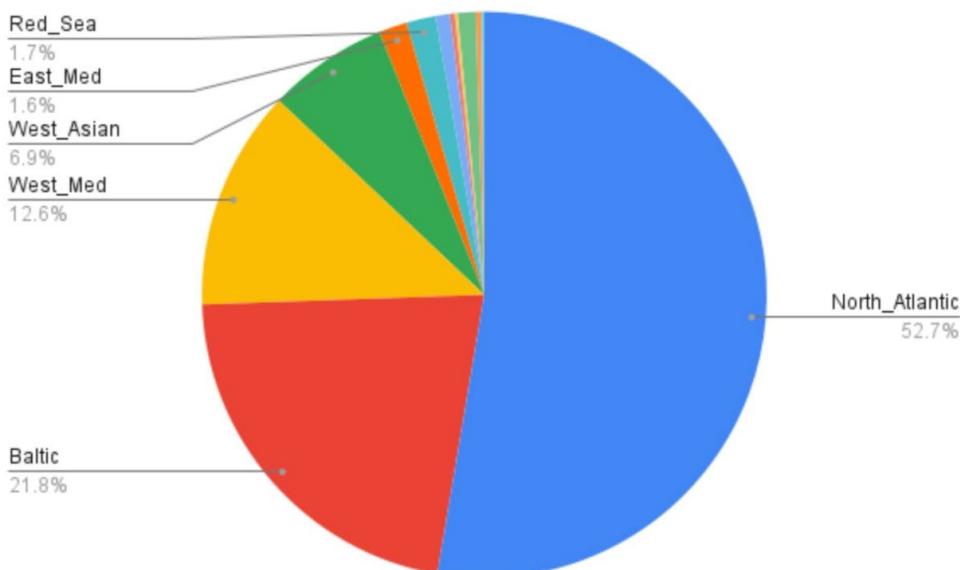


# Anthropological and archival research findings

- Skeletal and dental analysis takes place at University of New Hampshire in Dr. Amy Michael's secure forensic anthropology lab from June 2021-November 2021
  - Updated forensic methods applied to estimate age, sex, and ancestry
  - Facial asymmetry reassessed and forensic art is updated with new findings
  - Identifying dental features are recorded with assistance from local dentist
- After approval from Jefferson County SO, Laurah Norton begins background research
  - Possible missing persons matches
  - Similar crimes in the region and beyond
  - Background research on the recovery scene

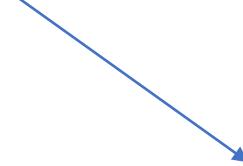
# Admixture (Ethnicity Estimate)

North_Atlantic	52.67
Baltic	21.79
West_Med	12.58
West_Asian	6.9
East_Med	1.62
Red_Sea	1.68
South_Asian	0.81
East_Asian	0.28
Siberian	0.16
Amerindian	1.03
Oceanian	0.3
Northeast_Africa	0.19



# Top matches in database

1.432.1 cM (Largest segment 44.8 cM)  
2.168.2 cM (Largest segment 41.8 cM)  
3.159 cM (Largest segment 38.3 cM)  
4.81.6 cM (Largest segment 35.3 cM)  
5.74.4 cM (Largest segment 22.6 cM)  
6.65.7 cM (Largest segment 22.6 cM)  
7.61.7 cM (Largest segment 29.4 cM)  
8.58.7 cM (Largest segment 23.2 cM)  
9.58.5 cM (Largest segment 58.5 cM)  
10.58 cM (Largest segment 28.3 cM)



**82%**

Great-Great-Aunt / Uncle

Half Great-Aunt / Uncle Half 1C 1C1R

Half Great-Niece / Nephew

Great-Great-Niece / Nephew

**18%**

Half GG-Niece / Nephew †

Half GG-Aunt / Uncle † 2C Half 1C1R 1C2R

**0.57%**

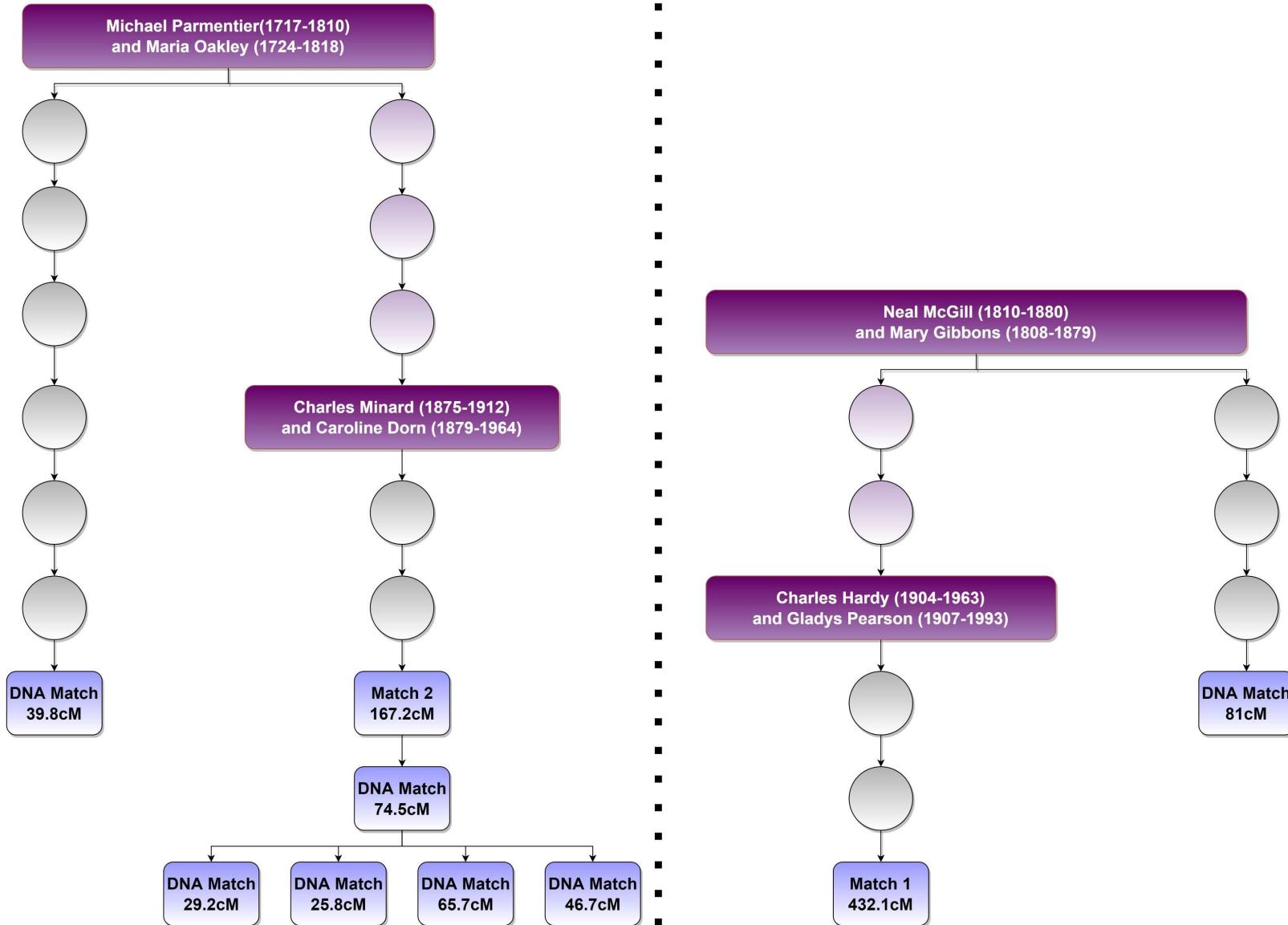
Great-Grandparent † Great-Grandchild †

Half Aunt / Uncle † Half Niece / Nephew †

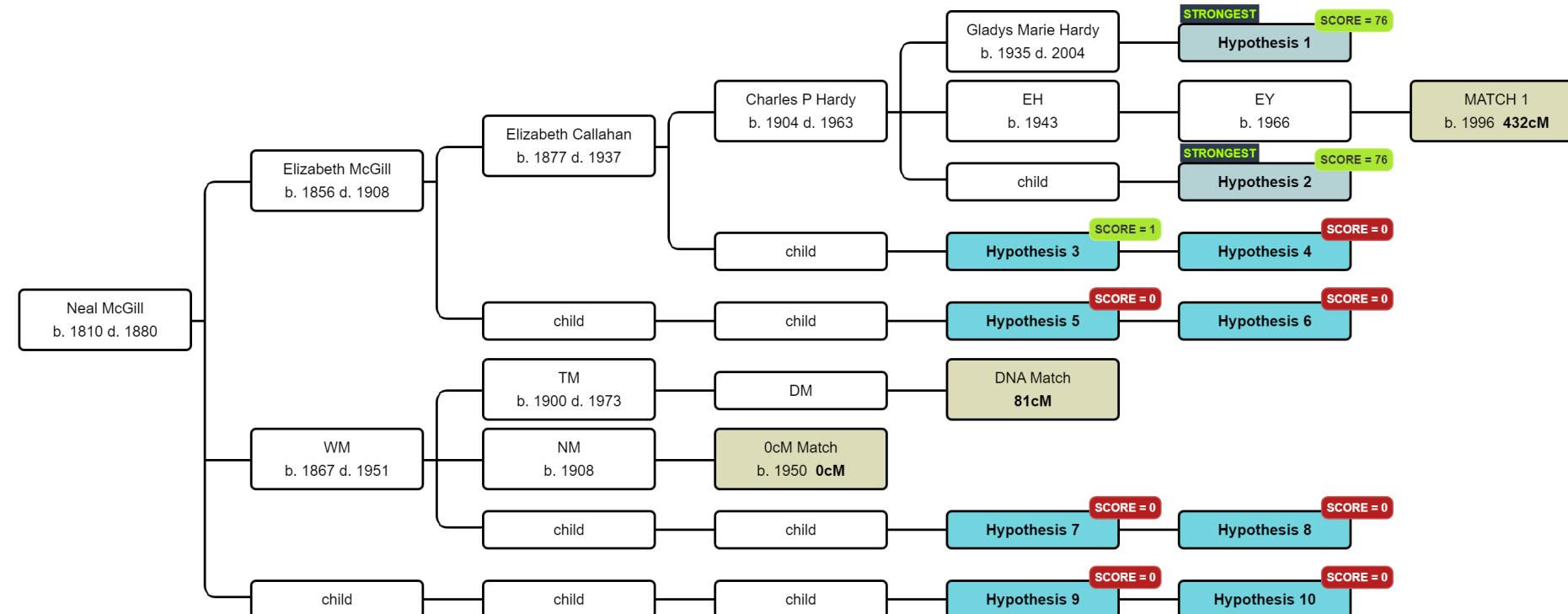
Great-Aunt / Uncle 1C Great-Niece / Nephew

† this relationship has a positive probability for 432cM in thednageek's table of probabilities, but falls outside the bounds of the recorded cM range (99th percentile)

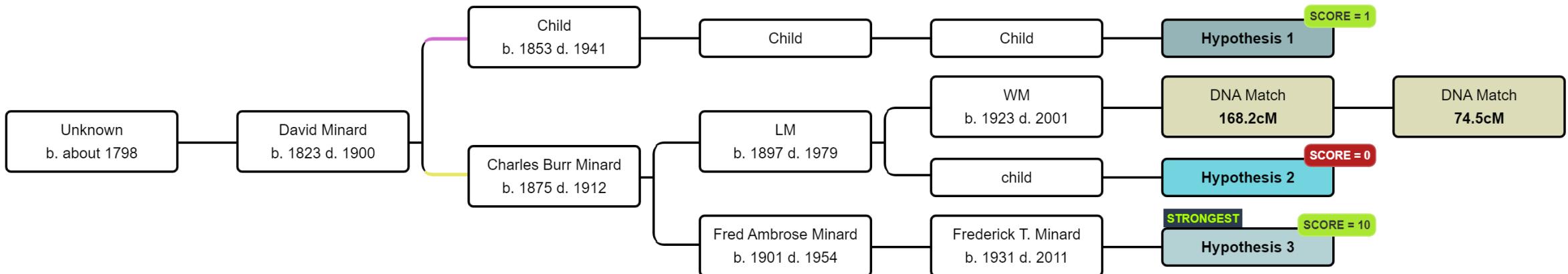
# Most Recent Common Ancestors (MRCA)



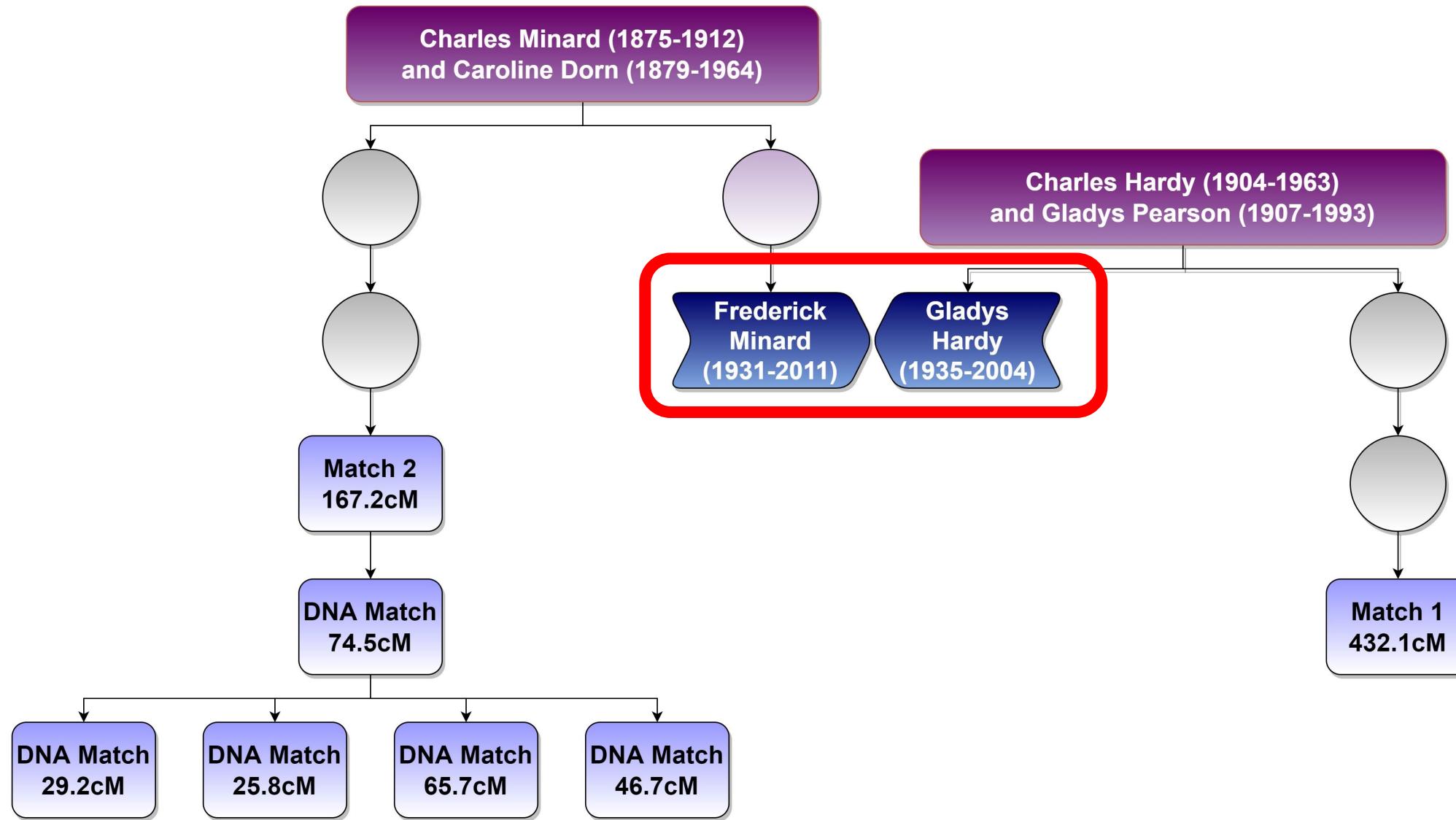
# Probability tree, side 1



# Probability tree, maternal side



# Crossover Common Ancestor (XCA)



# Confirmatory DNA match

## Filter

Enter the total number of cM for your match here:

reset

or enter %

Then any relationships that fit will stand out below

[Click here for a shareable link to the cM amount above](#)

### Most distant common ancestors

Assuming no [pedigree collapse](#) or [endogamy](#), and that you're related in just one way, the **furthest** back you might need to go to find common ancestors for a match of 2592.5cM is [Parent level](#)

### Relationship probabilities (based on stats from [The DNA Geek](#))

[New: View these relationships in a tree](#)

**100%** *Sibling*

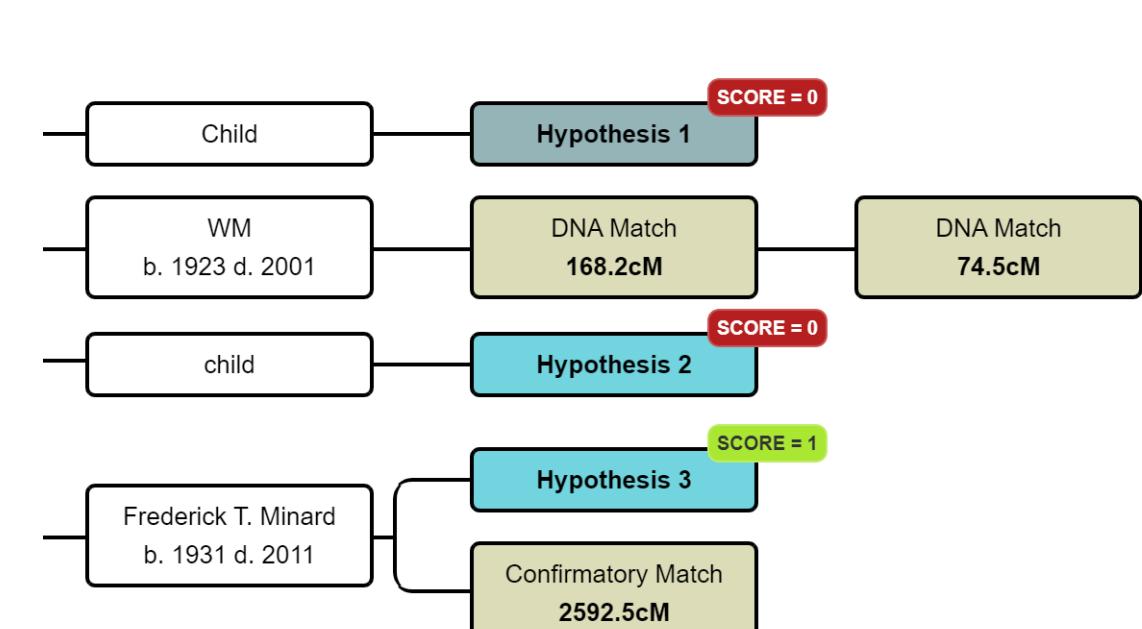
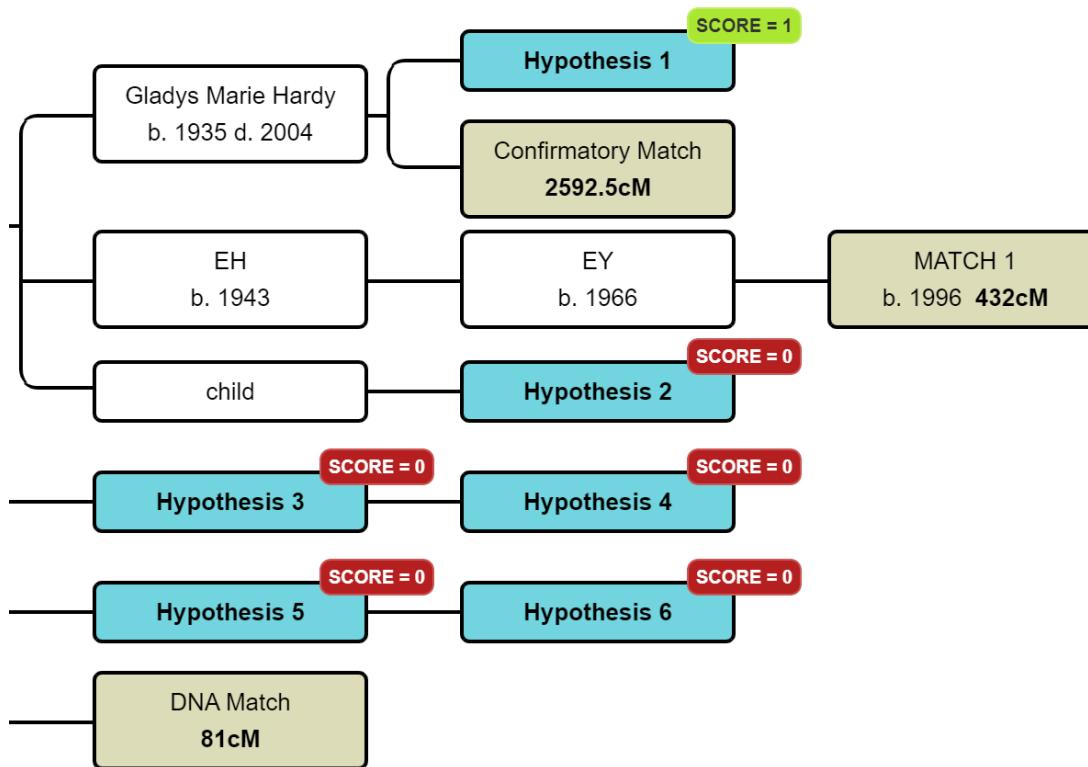
**0.14%** \* *Half Sibling* *Grandparent* *Grandchild*  
*Aunt / Uncle* *Niece / Nephew*

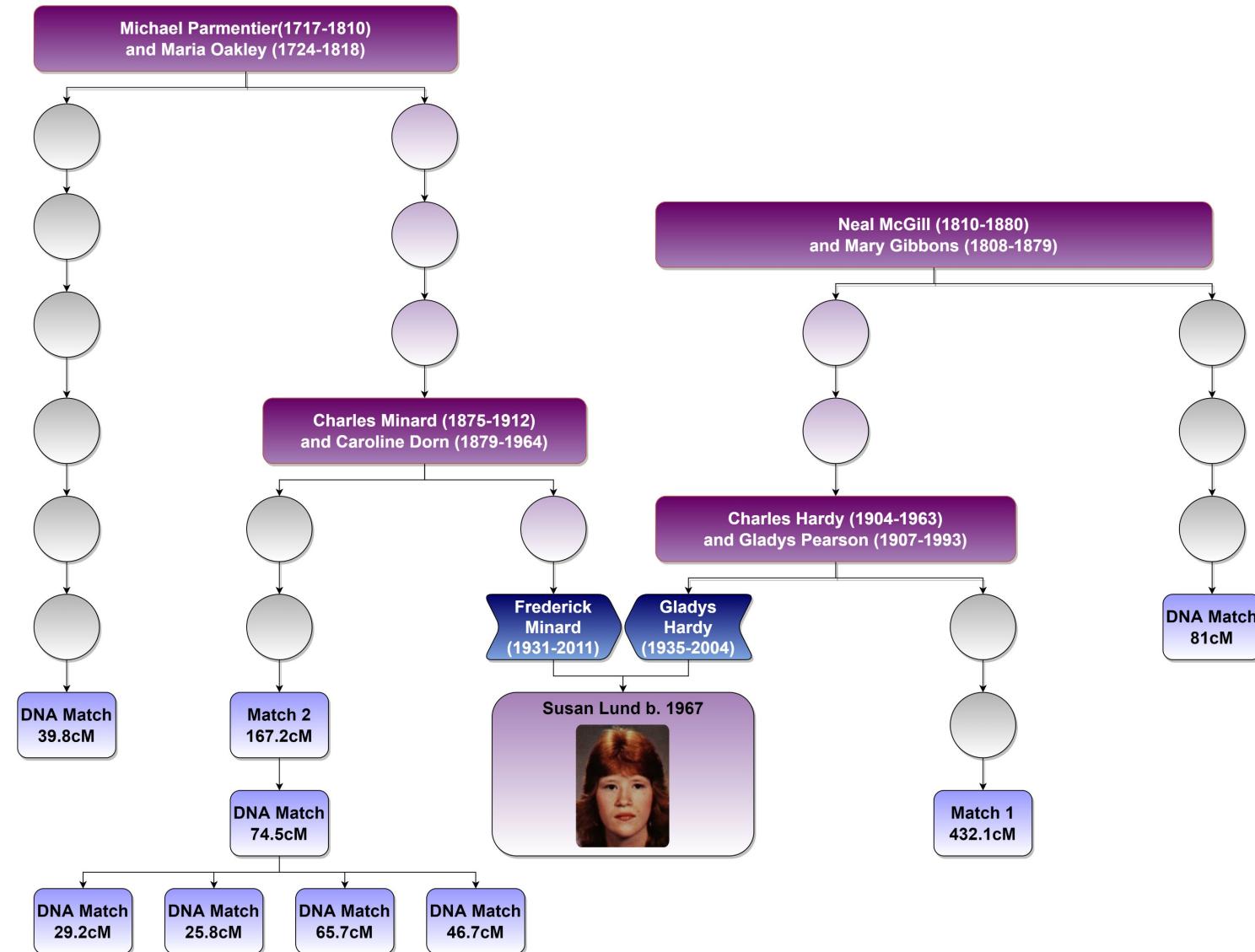
**~ 0%** \*\* *Parent*

\* this set of relationships has a positive probability for 2592.5cM in thednageek's table of probabilities, but falls outside the bounds of the shared cM project (99th percentile)

\*\* this set of relationships is just within the threshold for 2592.5cM, but has a zero probability in thednageek's table of probabilities

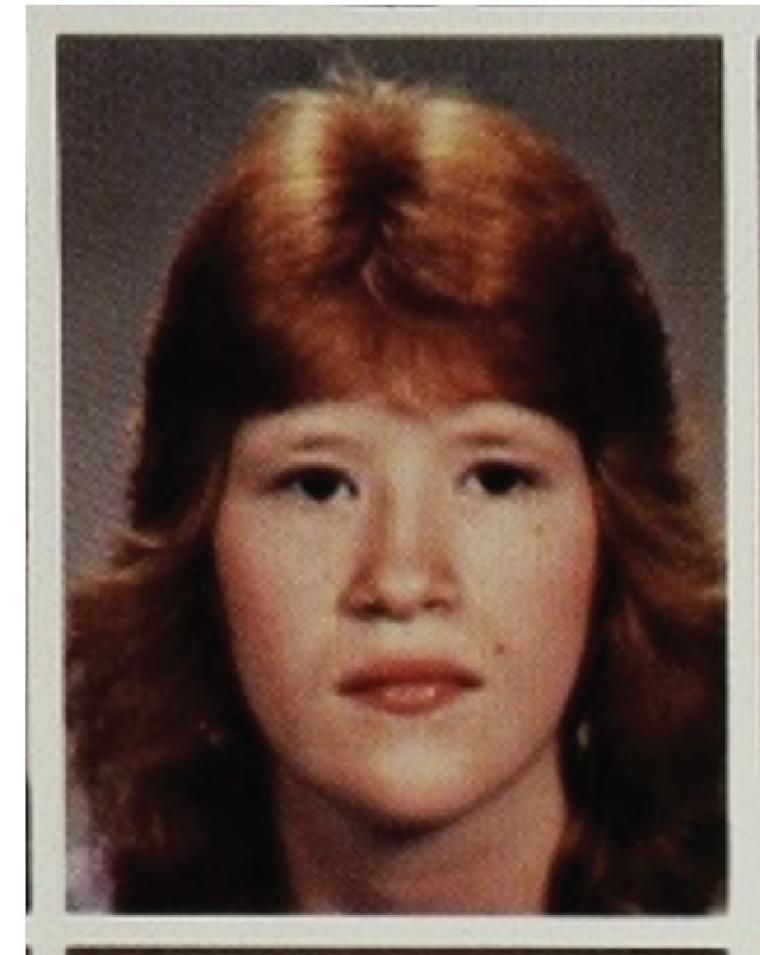
# Probability trees with confirmatory match





# Statistics

Individuals in tree	2,044
DNA Matches	23
MRCA couples	4
Days to identify family group of interest	>1
Days until candidate located	>1
Genealogists on team	10



*The team at Redgrave Research Forensic Services would like to express our condolences to the family of Susan Lund,  
As well as our gratitude to everyone who has been involved in the efforts to identify her.*

# Acknowledgments

## Research and Team Co-Lead

- Laurah Norton

## Lead Forensic Genetic Genealogists

- Anthony Redgrave
- Lee Bingham Redgrave

## Genealogy Team

- Kaycee Connelly
- Samantha Dunne
- Chelsea Hanrahan
- Andrea McCarthy
- Elizabeth Marshall
- Pam Stigsen
- Jessica Veltstra

## Genealogical Database and tools

- GEDmatch
- DNAPainter

# Acknowledgments

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- Dr. Samantha Blatt, Idaho State University
- Dr. Steffen Poltak
- Dr. Andrew Albee, Suncook Dental
- Hubbard Center for Genomic Studies, University of New Hampshire

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- <https://www.facebook.com/redgraveresearch>
- Help forensic genetic genealogists solve more cases by uploading your DNA data to GEDmatch; please visit [help.FG4LE.com](http://help.FG4LE.com) for a how-to guide.
- For questions related to anthropological analysis, please contact: [amy.michael@unh.edu](mailto:amy.michael@unh.edu)

*Any information about the actions and/or whereabouts of Susan Lund on or following December 24, 1992 should be directed to Detective Captain Bobby Wallace at the Jefferson County Sheriff's Office at (618) 244-8004 or email bwallace@jeffil.us*