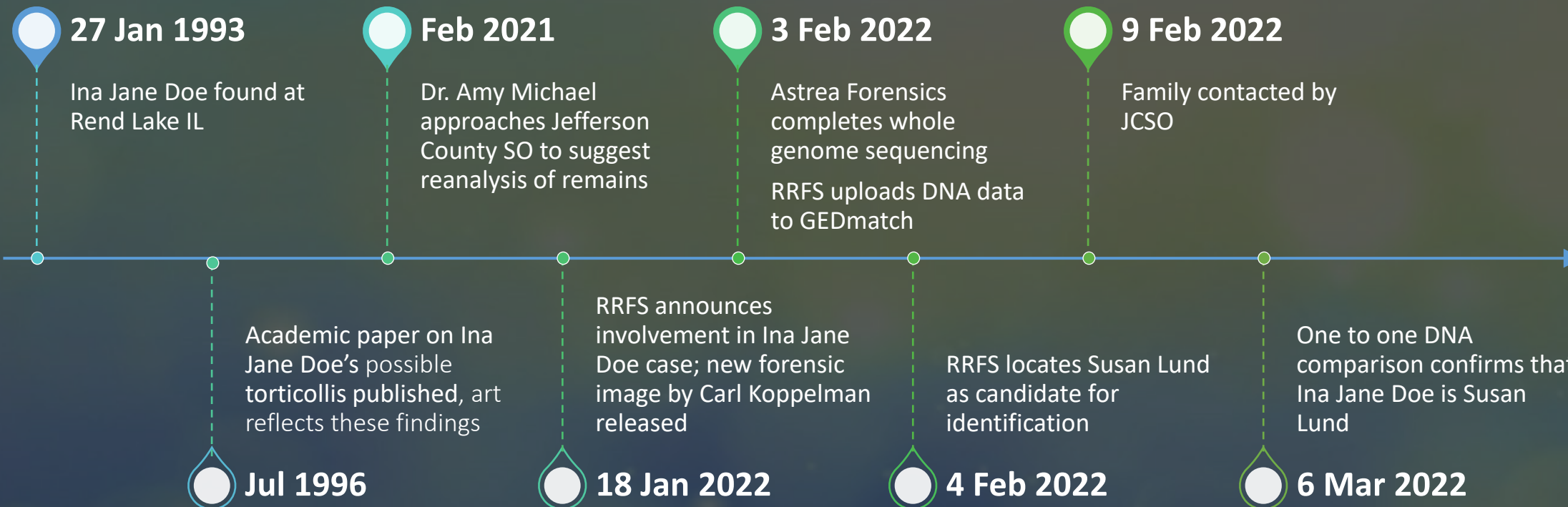


Redgrave Research  
Forensic Services

March 11 2022

Identification of  
Susan Lund as  
Ina Jane Doe  
1993



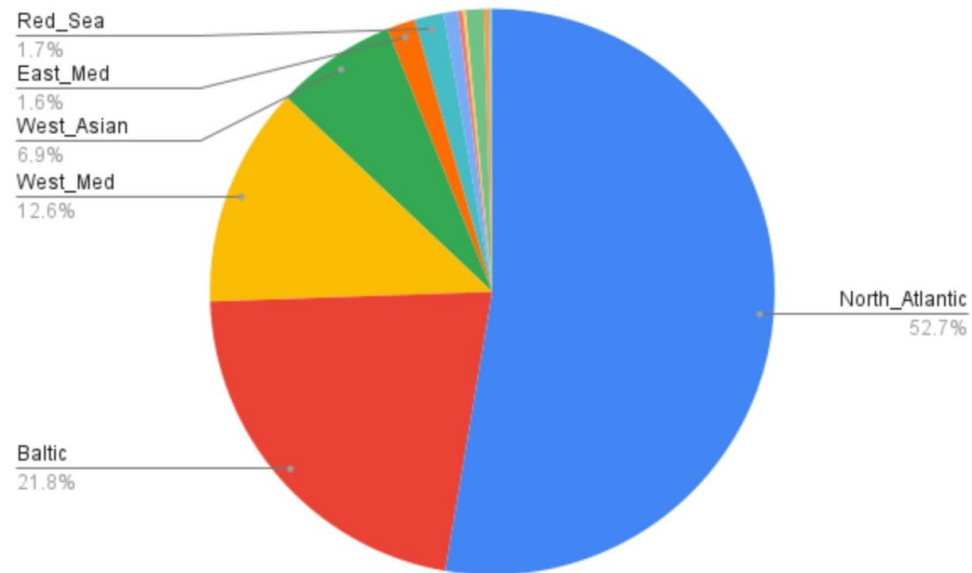


# Anthropological and archival research findings

- 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, Lurah 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_African	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%**

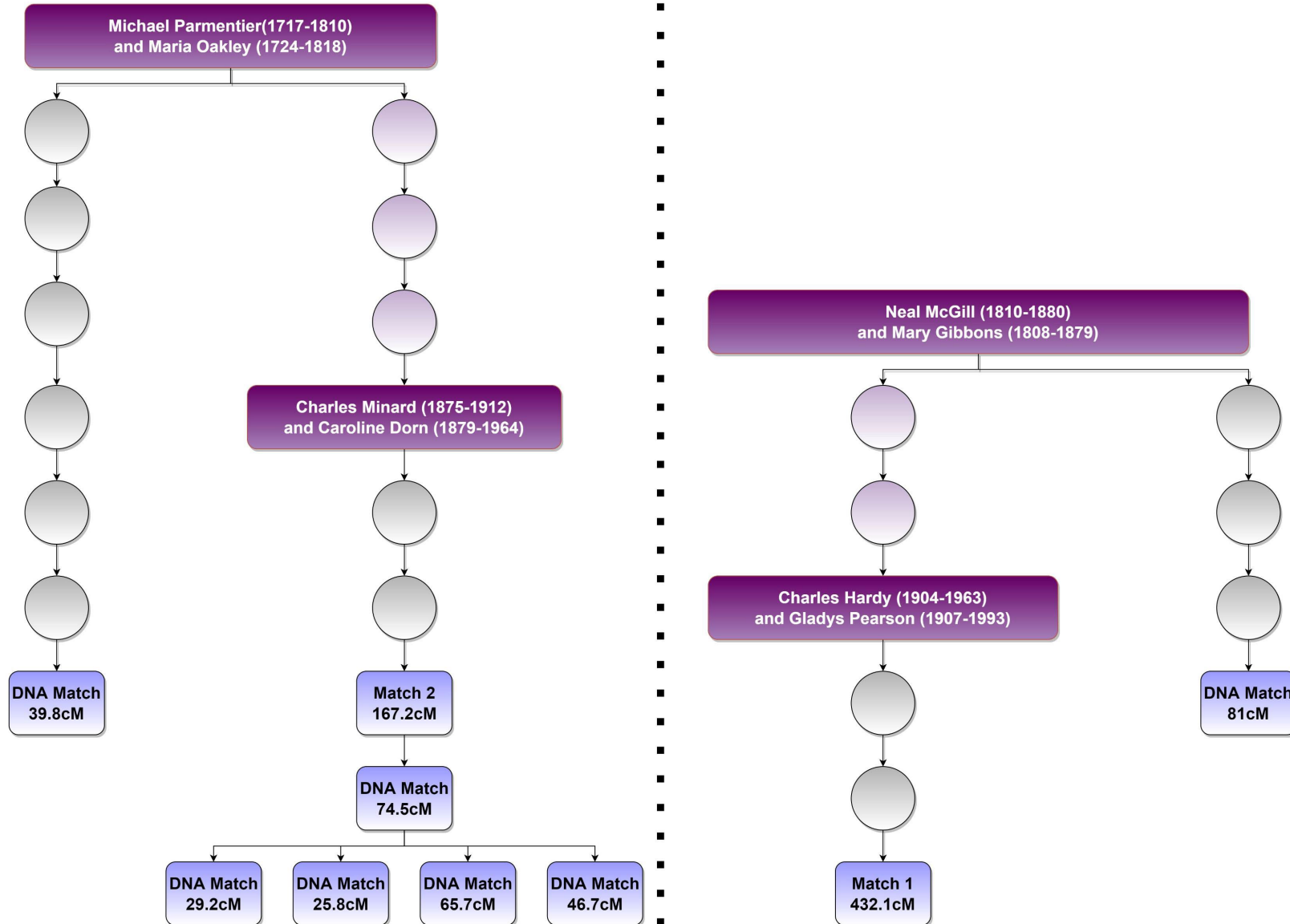
*Great-Grandparent †* *Great-Grandchild †*

*Half Aunt / Uncle †* *Half Niece / Nephew †*

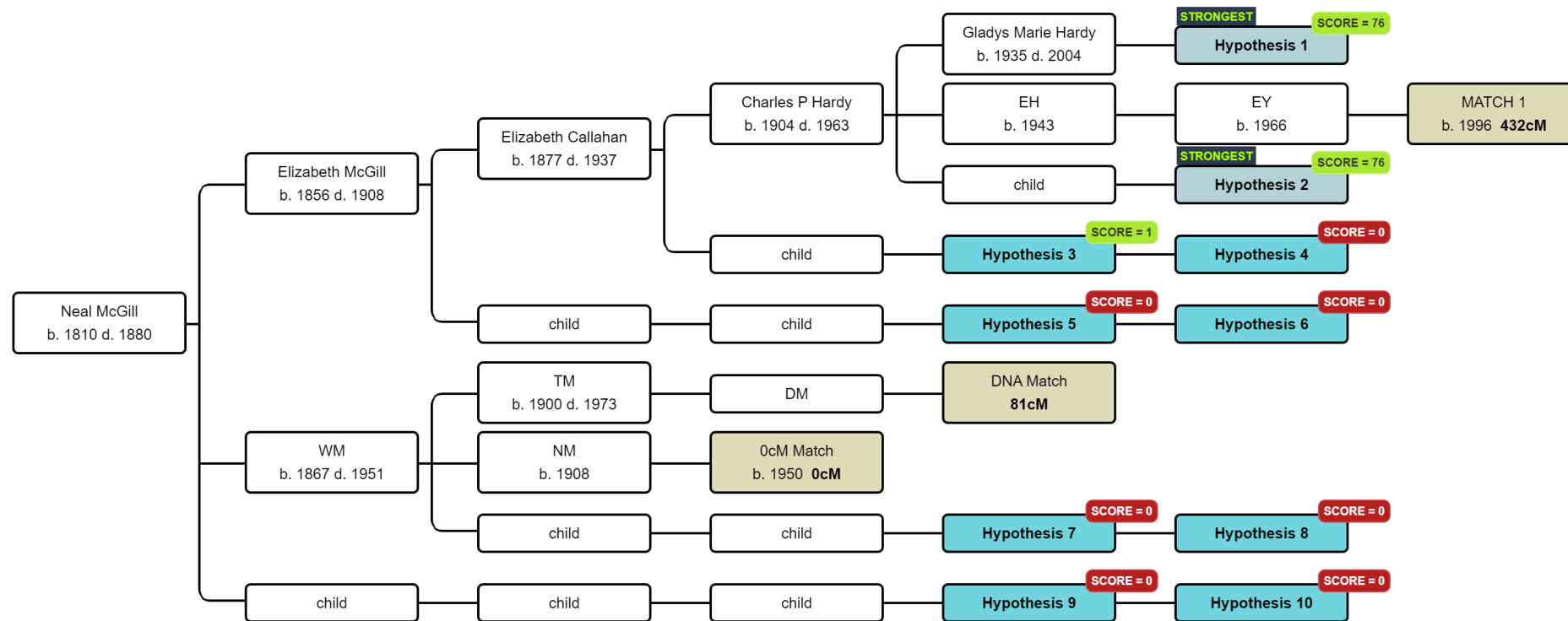
*Great-Aunt / Uncle* *1C* *Great-Niece / Nephew*

† 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 (MRCAs)

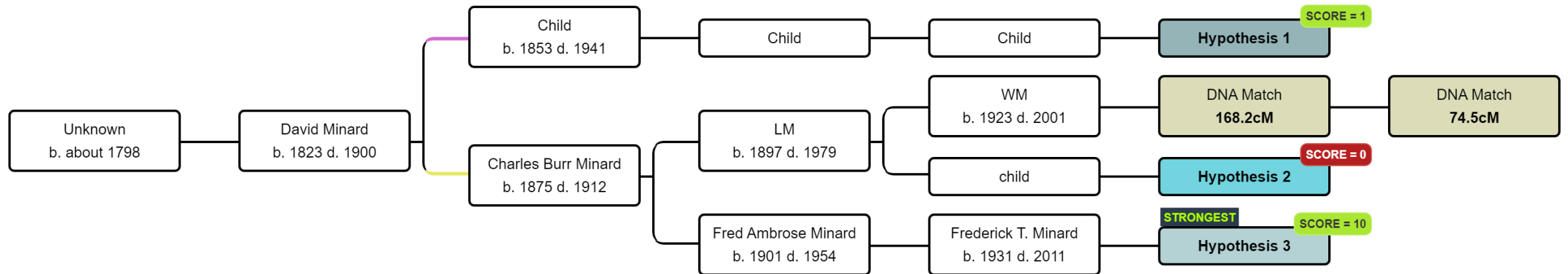


# Probability tree, side 1



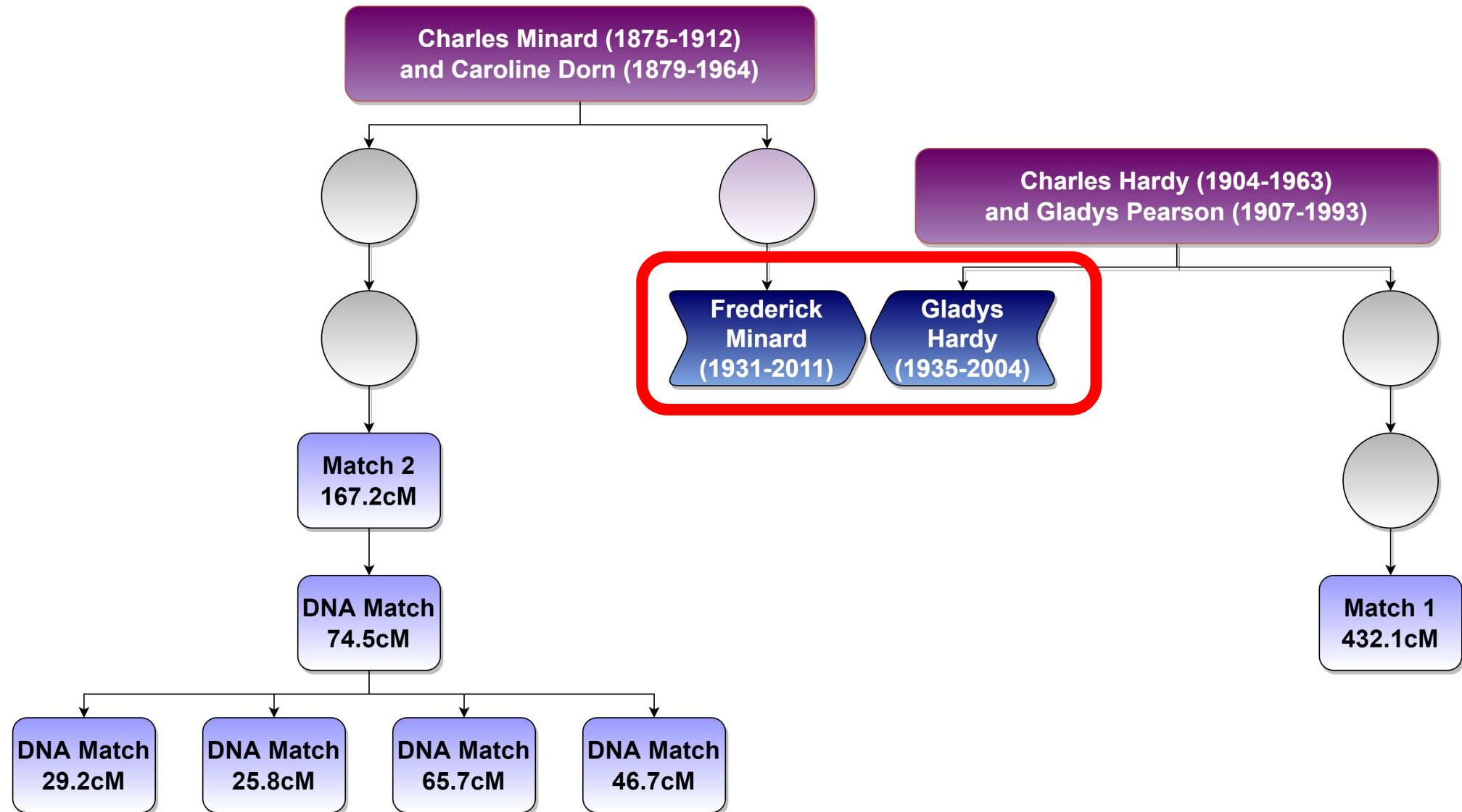
What Are The Odds (WATO) tool, DNAPainter.com

# Probability tree, maternal side





# Crossover Common Ancestor (XCA)



# Confirmatory DNA match

## Filter

Enter the total number of cM for your match here:

2592.5

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*

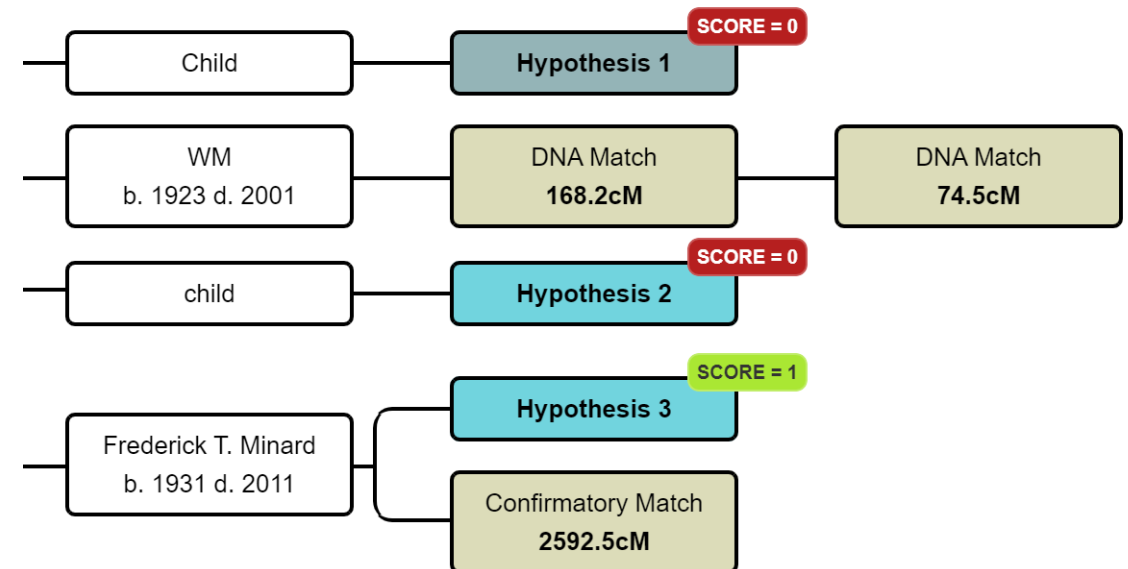
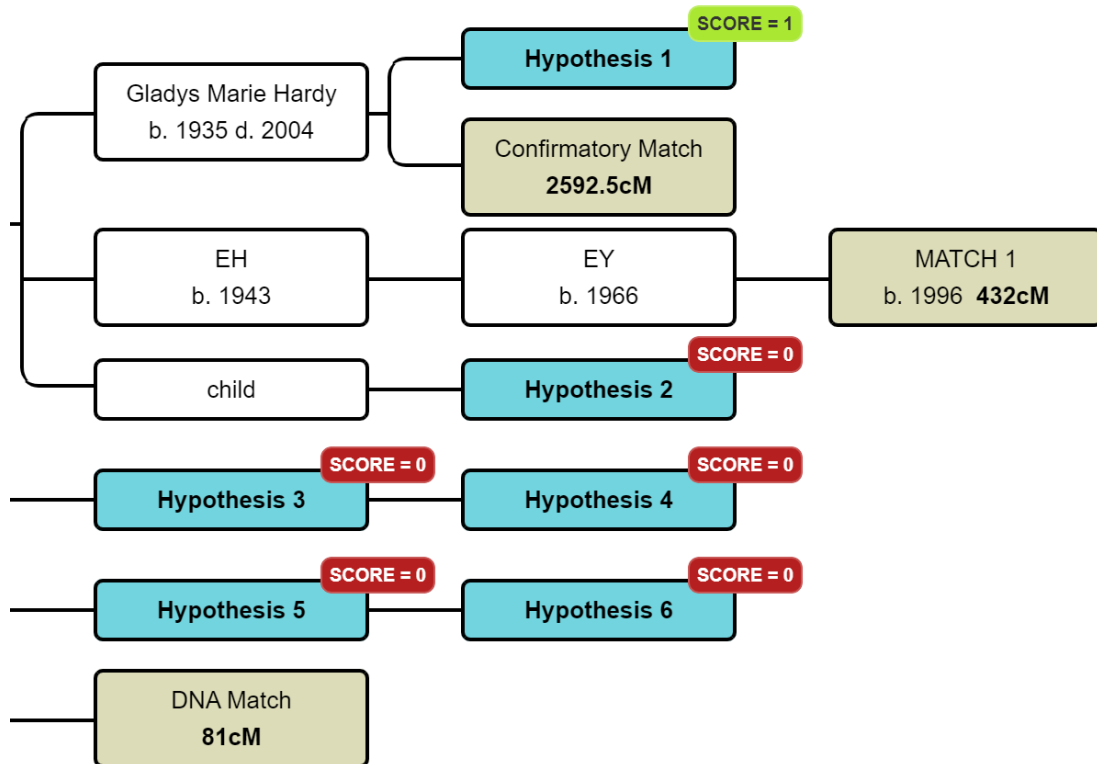
**0.14%** \* *Half Sibling* *Grandparent* *Grandchild*  
*Aunt / Uncle* *Niece / Nephew*

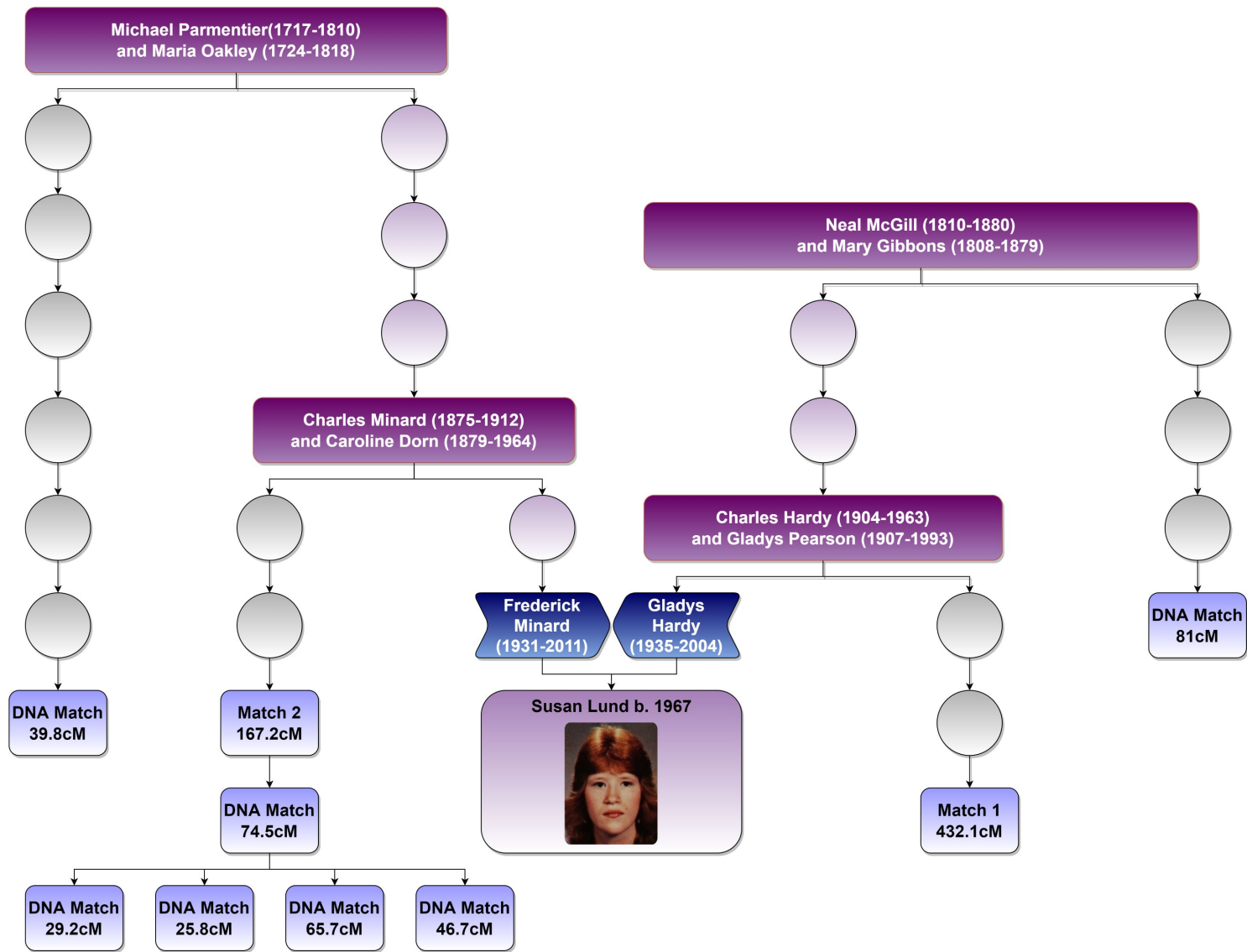
**~ 0%** \*\* *Parent*

\* 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.*

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- Laurah Norton

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- Anthony Redgrave
- Lee Bingham Redgrave

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- Chelsea Hanrahan
- Andrea McCarthy
- Elizabeth Marshall
- Pam Stigsen
- Jessica Veltstra

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- GEDmatch
- DNAPainter

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- Dr. Steffen Poltak
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- Hubbard Center for Genomic Studies, University of New Hampshire

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- 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](mailto:bwallace@jeffil.us)*