

# Science Camp #170802.8

02-04 August 2016 @ the Condo, the Nelson Cabin, and surrounding area



## Advisors

H. Roice Nelson, Jr., Andrea S. Nelson,  
Paul F. Nelson, Benjamin B. Nelson



## Attendees

Ethan E. Nelson, Grant M. Nelson, Colby C. Wright,  
Taylor R. Wright, Ella D. Nelson, Halle N. Wright,  
Bobbie Sophia Waldron, Dallin Spencer Nelson,  
Avalyn Joyce Wright, Rachel Lee, & Ian Lee

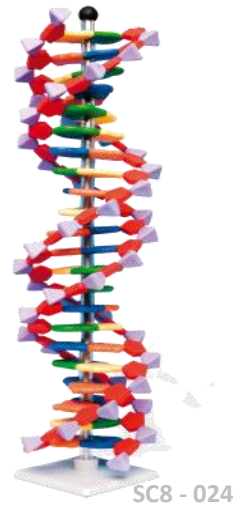
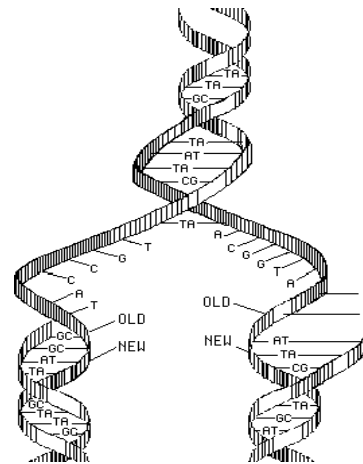
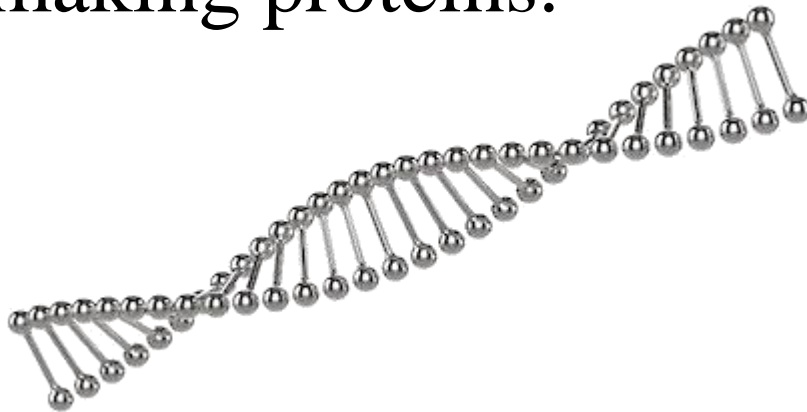


**Wait not those Jeans!**

## 2. Genetics

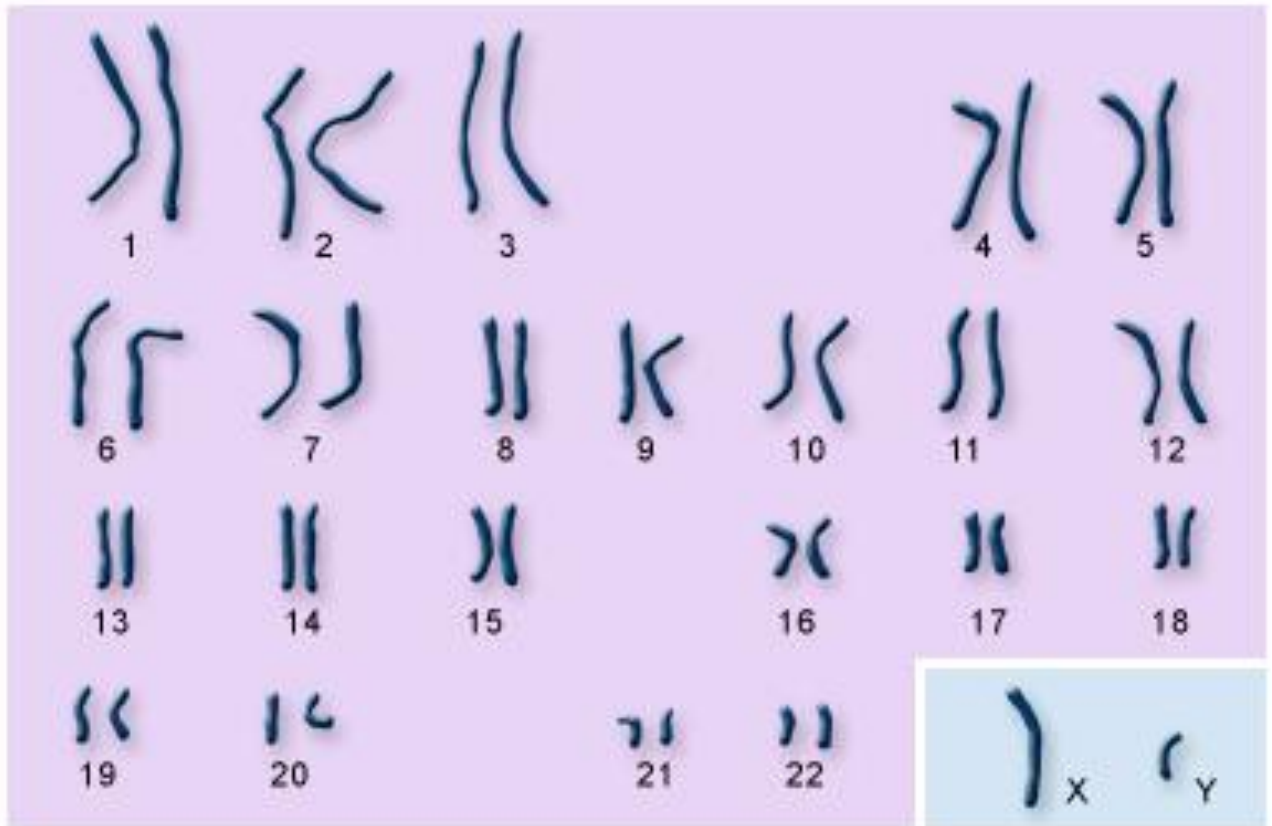


The chemical code that is the basis of genetic inheritance and consists of triplets of three linked chemical groups in DNA and RNA which specify particular amino acids used to make proteins or which start or stop the process of making proteins.



SC8 - 024

# MY GENES and ME



autosomes

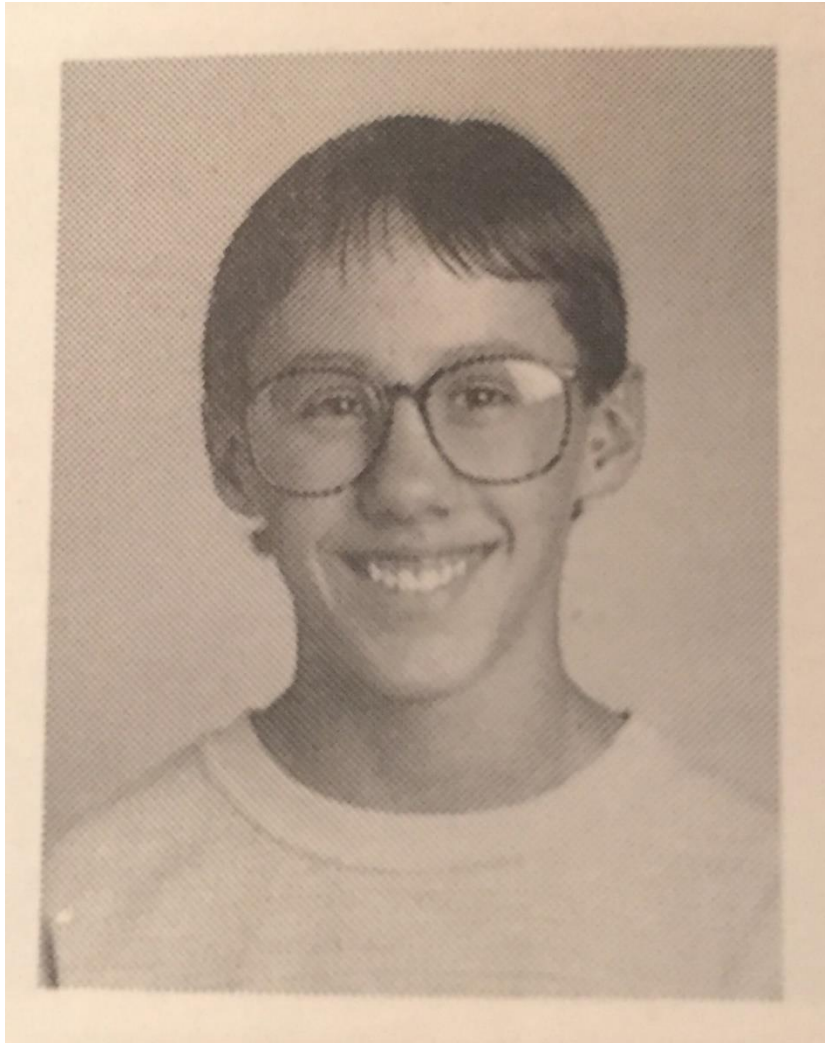
sex chromosomes

U.S. National Library of Medicine

[https://youtu.be/ubq4eu\\_TDFc](https://youtu.be/ubq4eu_TDFc)

<https://www.youtube.com/watch?v=tJjXpiWKMyA>

YOU ARE UNIQUE!  
YOU BELONG!





# MINI ME'S



<http://learn.genetics.utah.edu/content/basics/traits/>

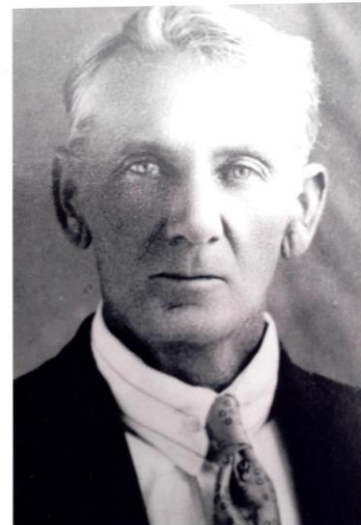
# Dominant and Recessive Genes



Blue/light eyes can be passed down from generation to generation.

Dominant genes may be invisible.

<https://www.youtube.com/watch?v=mnSkz8s-b44>



# Where did Sophie get her blue eyes and blonde hair?





# VARIANT'S

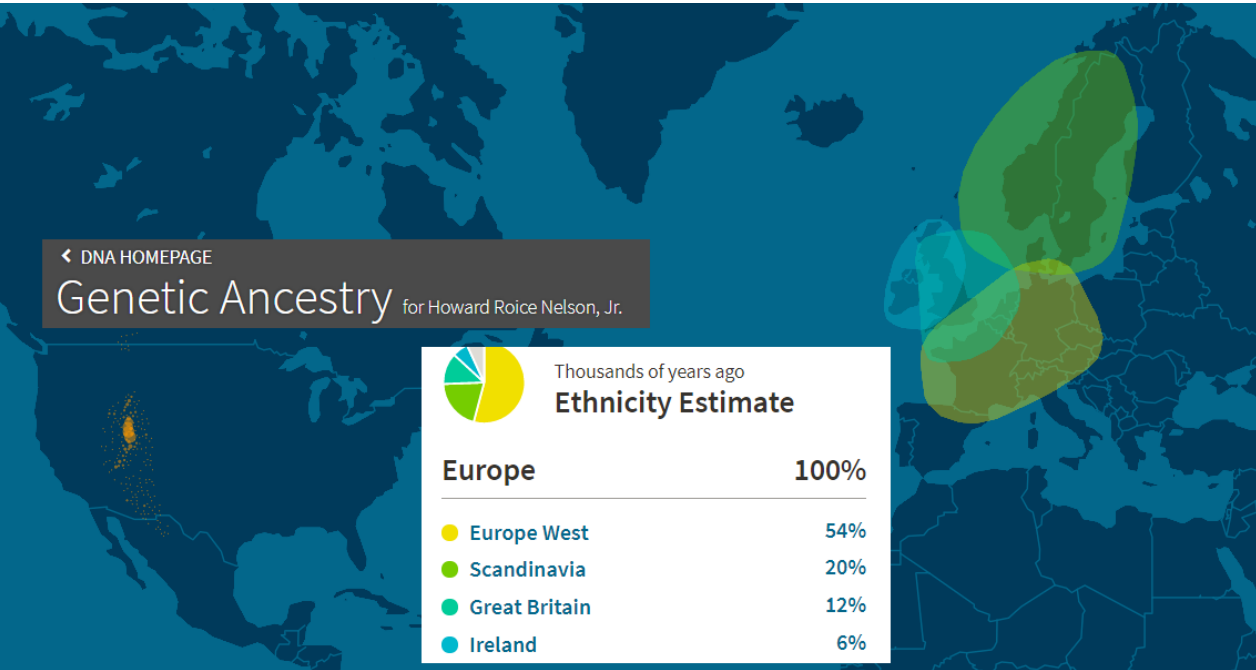
Mapping variances through genealogy can help in disease research.



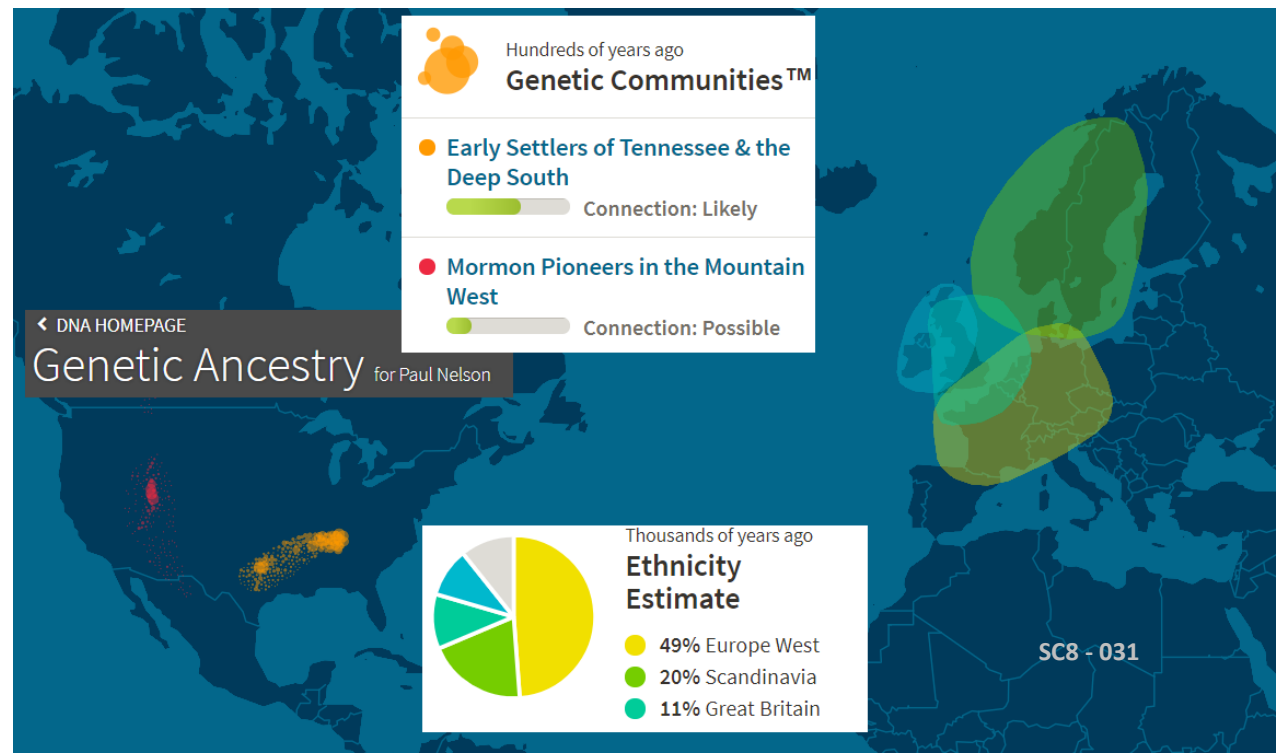
## What Mormon Family Trees Tell Us About Cancer

By searching the church's famed family trees, scientists have tracked down a cancer-causing mutation that came west with a pioneer couple—just in time to save the lives of their great-great-great-great grandchildren.

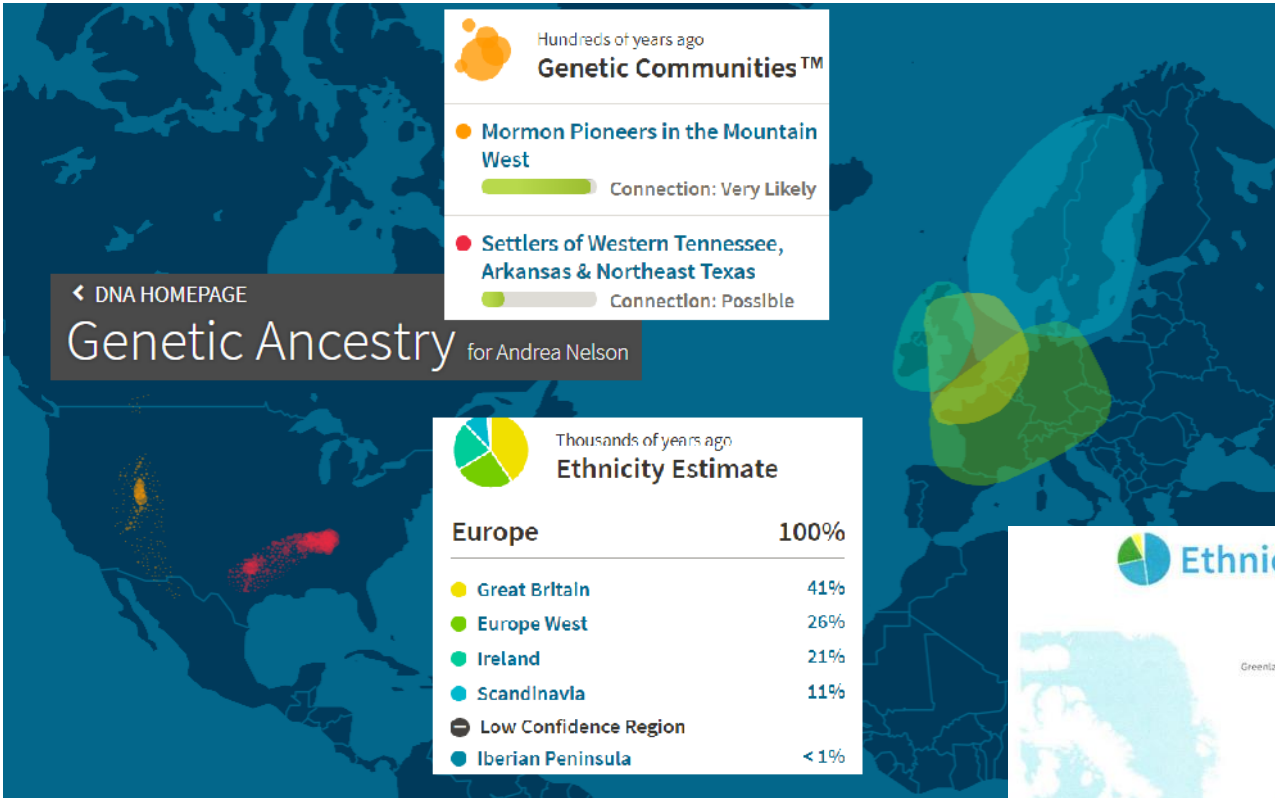
# Grandpa



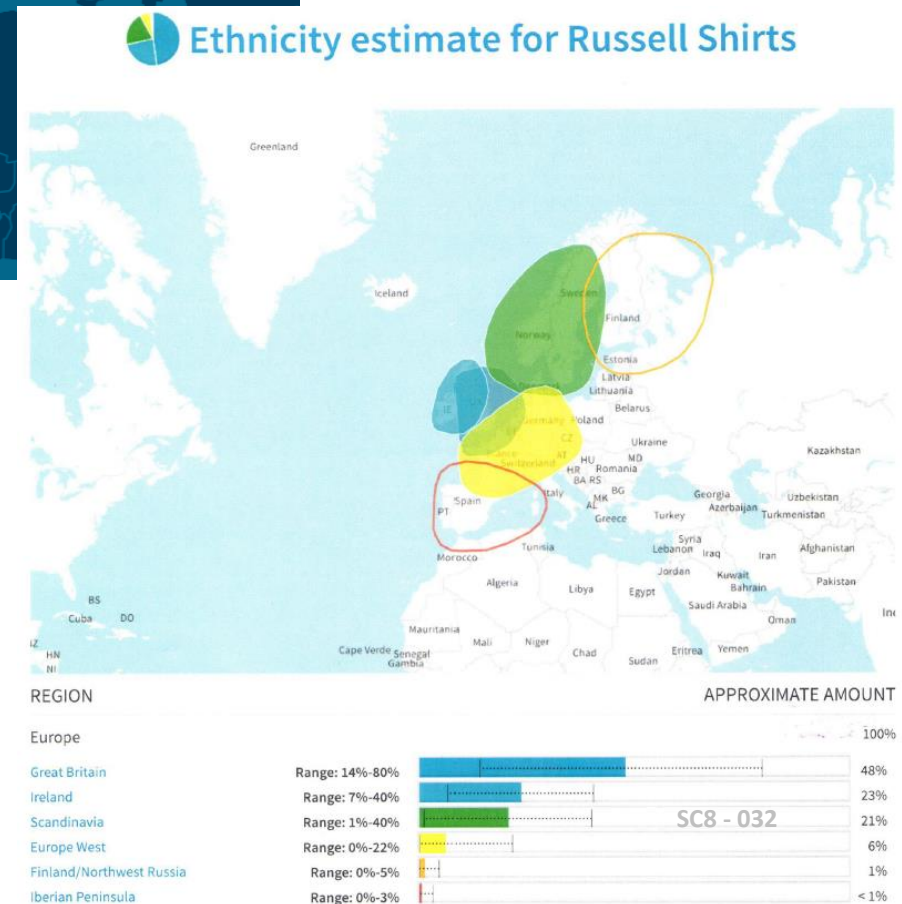
# Uncle Paul Nelson



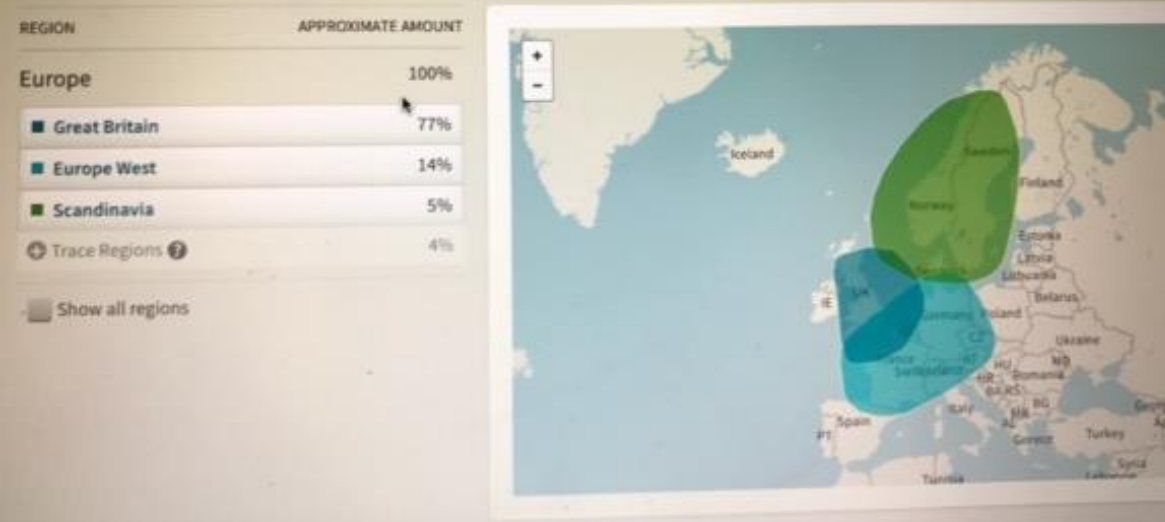
# Grandma



# Uncle Russell Shirts

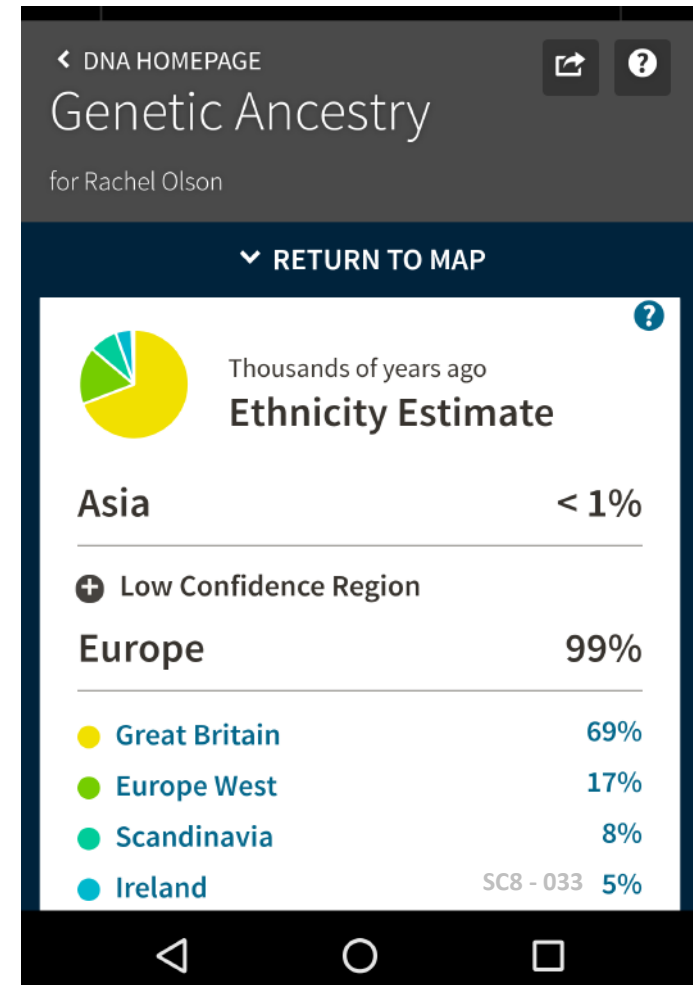


## Ethnicity estimate for Audrey Waldron



# Aunt Audrey Waldron

# Aunt Rachel Olson



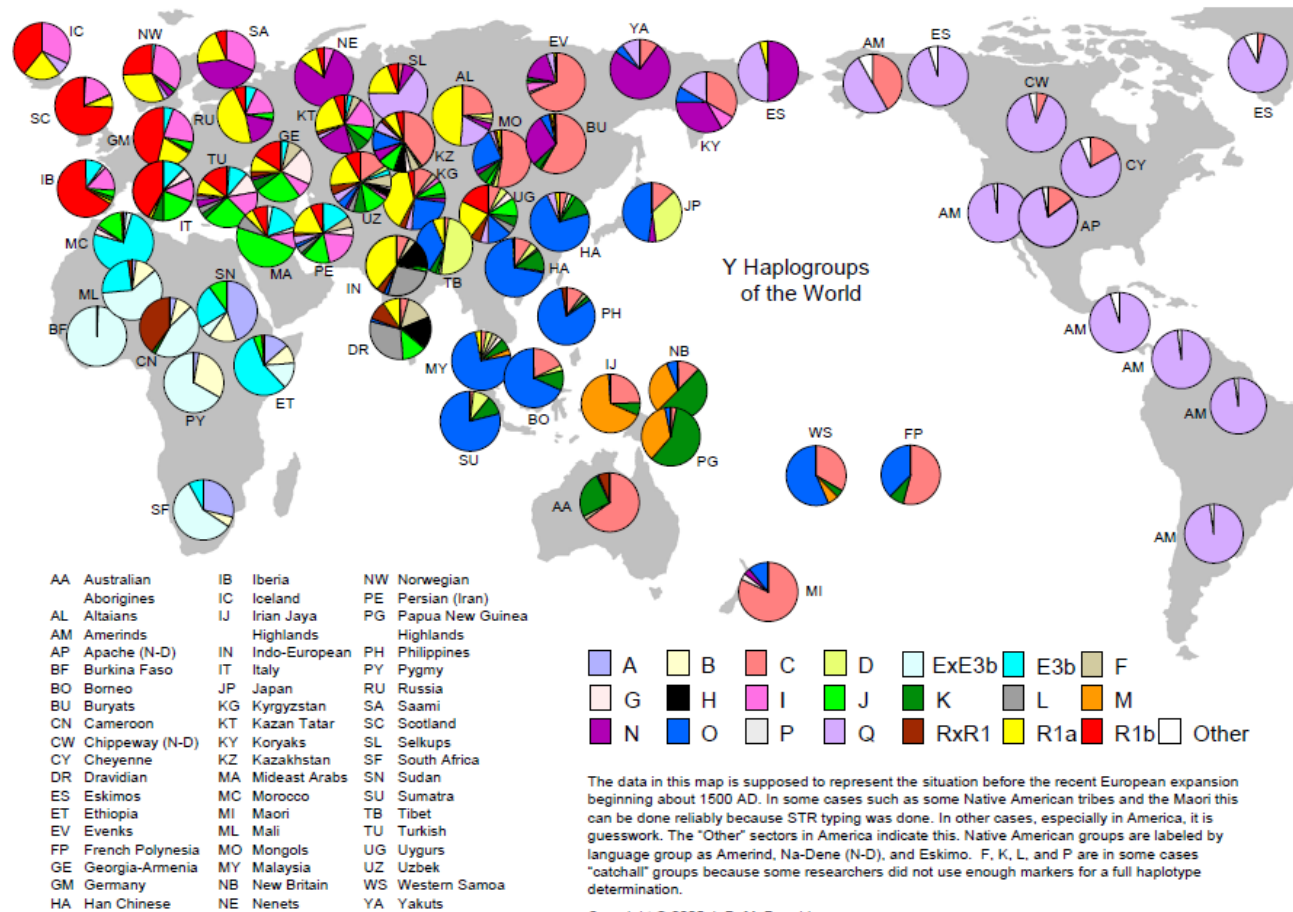


# Summary

	Grandpa	Uncle Paul	Grandma	Uncle Russell	Aunt Audrey	Aunt Rachel
Europe West	54%	59%	26%	6%	14%	17%
Scandinavia	20%	20%	11%	21%	5%	8%
Great Britain	12%	11%	41%	48%	77%	69%
Ireland	6%	-	21%	23%	-	5%
Finland and NW Russia	-	-	-	1%	-	-
Iberia Peninsula	-	-	<1%	<1%	-	-

# Genetics can help solve Genealogical problems

## Baird solution - Rutledge problem



# Notes

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

# 2017 Science Camp

- What was best about 2017 Science Camp?

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

- What would be your ideal 2018 Science Camp Theme?

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_