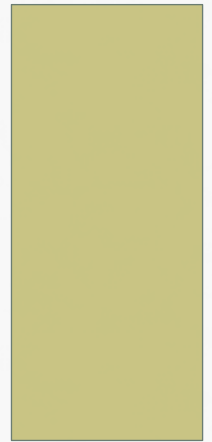


# HOW TO GET THE BEST AND AVOID THE WORST FROM YOUR DNA TEST

AND WHICH FIRM ARE YOU GOING TO CHOOSE?



# DNA TESTING IS A SUPERB TOOL FOR GENEALOGISTS

- DNA testing (by the right person taking the right test with the right firm) will give you the skeleton.
- Genealogy will name the skeleton (and Family History will put meat on its bones).
- DNA testing for genealogical purposes is risky and you need to be prepared to face a possible surprise!

# WHAT IS **FTDNA**?

## **WARNING**

*DNA TESTING IS FULL OF ACRONYMS & SHORTHAND.  
LEARN THEM*

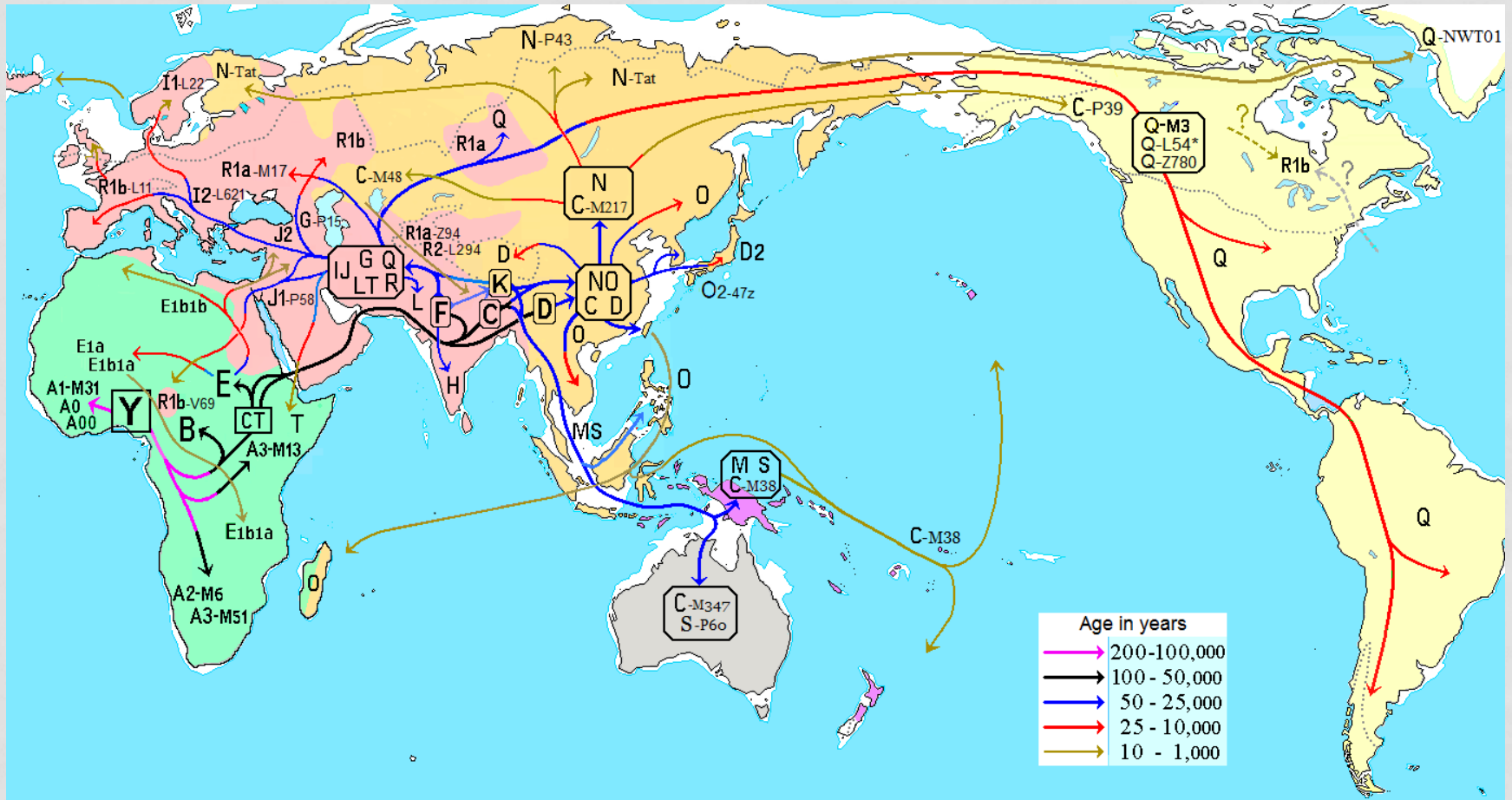
- FTDNA means FamilyTreeDNA
- This is a genetic genealogical testing company.
- It is privately owned and based in Houston, Texas, US
- It is the only company testing your entire DNA  
(for genealogical purposes)
- It will test your 'Father' line; your 'Mother' line; your  
'Cousins' line; your 'Ethnicity' line; etc. etc.

# Y CHROMOSOMAL = FATHER LINE

- This is taken from the Y chromosome.
- Only males have this chromosome.
- To help you remember, think of 'Y-fronts'.
- It considers sons to fathers to fathers to fathers etc. back through thousands of years.
- Remember that those fathers also had brothers.
- Those brothers may also have had sons.
- So just because you do not have a living father, someone out there will also be carrying your male paternal genes.

SOURCE:

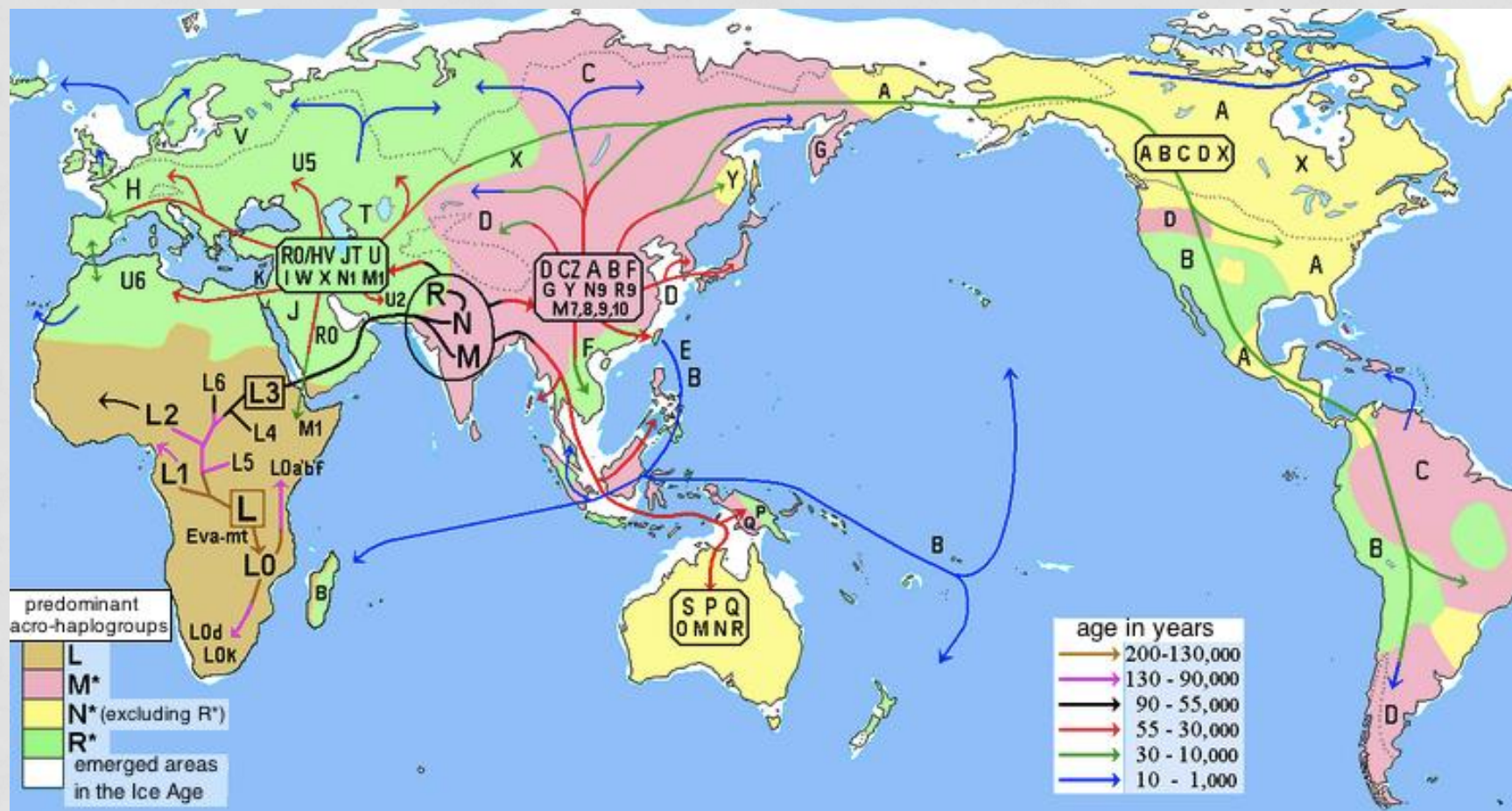
[HTTPS://UPLOAD.WIKIMEDIA.ORG/WIKIPEDIA/COMMONS/8/8C/MIGRACIONES\\_HUMANAS\\_EN\\_HAPLOGRUPOS\\_DE\\_ADN-Y.PNG](https://upload.wikimedia.org/wikipedia/commons/8/8c/Migraciones_humanas_en_haplogrupos_de_adn-y.png)



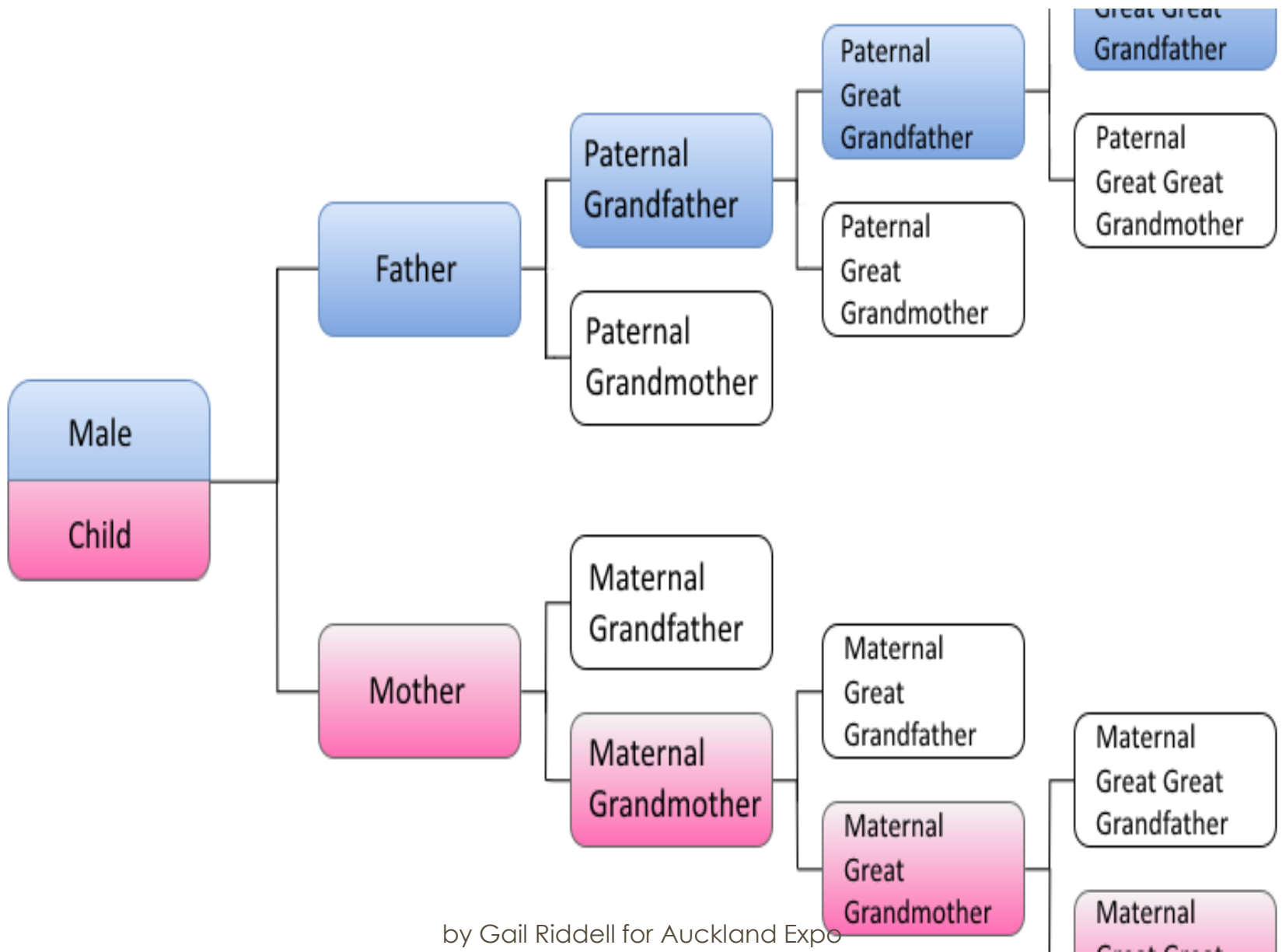
# MITOCHONDRIAL = MOTHER LINE

- This is taken from the mitochondria – (this is NOT a chromosome and is TOTALLY different to the X chromosome)
- Everybody carries this BUT males cannot pass it on.
- It considers the children to their mother to their mother and to their mother etc. back through thousands of years.
- Remember that these mothers may also have had sisters.
- Those sisters may also have had daughters and so on.
- Although not a recommended test for genealogy, it is invaluable for checking certain things out!

[HTTPS://UPLOAD.WIKIMEDIA.ORG/WIKIPEDIA/COMMONS/0/04/HUMAN\\_MI  
GRATIONS\\_AND\\_MITOCHONDRIAL\\_HAPLOGROUPS.PNG](https://upload.wikimedia.org/wikipedia/commons/0/04/Human_Migrations_and_Mitochondrial_Haplogroups.PNG)



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2018





# AUTOSOMAL = COUSIN LINE

- This considers both your mother's and your father's ancestry.
- Best done with at least one sibling and both parents (or siblings of each of your parents).
- You will be matched to all your cousins in the data base generally back to about the 4<sup>th</sup> cousin, but some have been able to get back to 6<sup>th</sup>/7<sup>th</sup> cousins.
- Available for both men and women.
- It looks at 22 pairs of chromosomes 1-22 plus the X.
- Women carry 2 X chromosomes; males carry 1.

[HTTP://REGENERATIONNET.COM/WP-CONTENT/UPLOADS/2015/04/DNA-GENEALOGY-IDENTIFY-YOUR-ANCESTORS.JPG](http://REGENERATIONNET.COM/WP-CONTENT/UPLOADS/2015/04/DNA-GENEALOGY-IDENTIFY-YOUR-ANCESTORS.JPG)

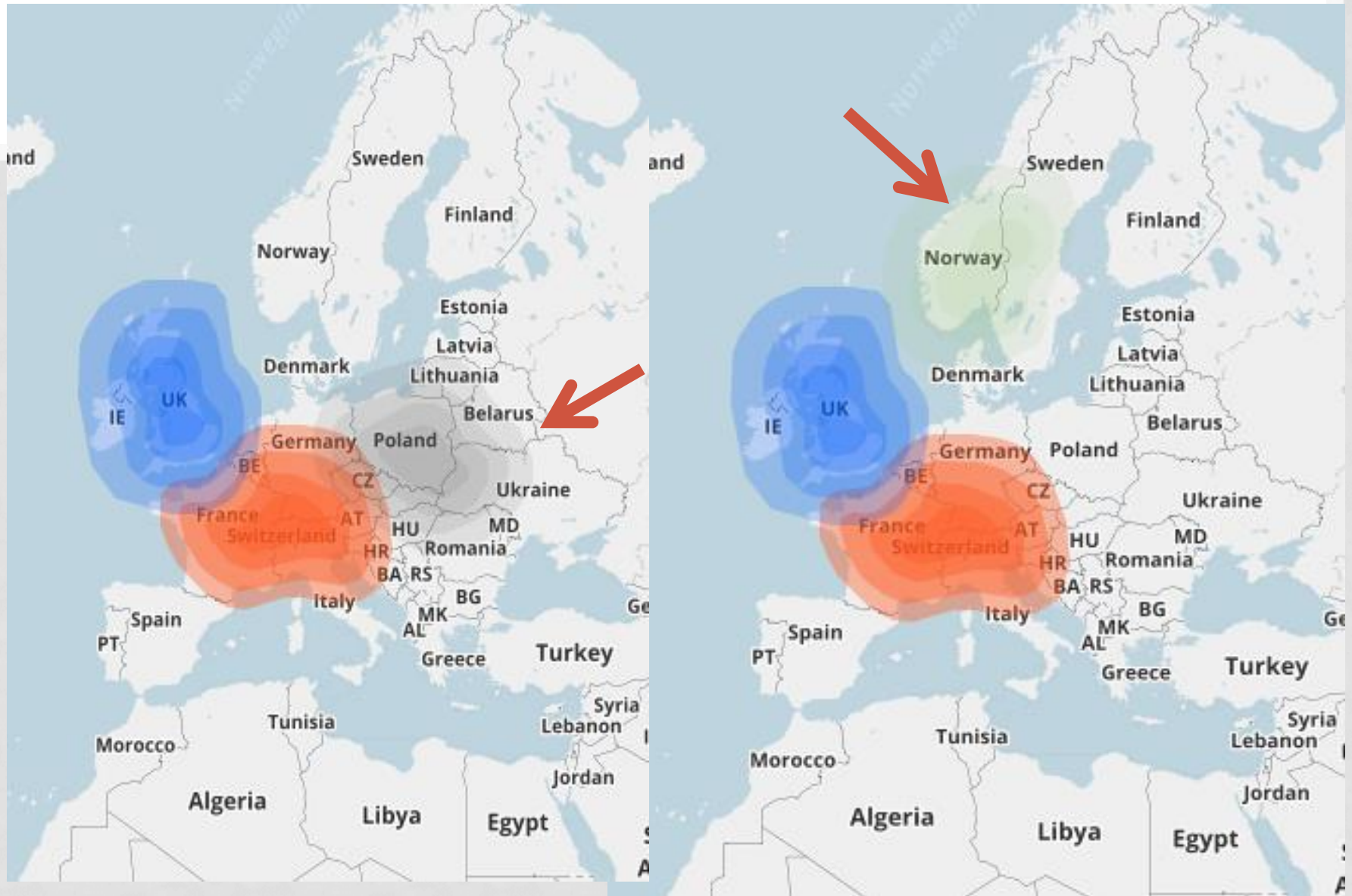


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# ETHNICITY?

- Whose ethnicity?
- Your mother's? (which you inherited) (see slide 7)
- Your father's? (which you inherited) (see slide 5)
- Your parents' ancestral ethnicities? (which you inherited) (next slide)
- Although all full siblings inherit exactly 50% of both father's and mother's autosomes, the actual segments inherited may be smaller or larger than those of their siblings (this is why 2 or more siblings should take the autosomal test – no matter which firm is chosen).

# TWO FULL SIBLINGS ETHNICITIES



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# HERE IS THE PROCESS, STEP-BY-STEP

- On arrival at the lab, the sample is “checked in” and is made ready for extraction.
- The sample is injected with a substance that removes any contaminants and a robot extracts the what is remaining – being clean DNA.
- Copies are made – called ‘amplification’.
- The DNA is placed on a chemically stained computer chip which is “read” by a laser and then scanned producing an image of your DNA.
- The outcome is then analysed by automated algorithms and the results go to the data scientist and the quality review team.
- Once the raw data is produced, a digital file is associated with your kit number.
- If all is satisfactory, the results are placed in the tester’s account and an email is sent to the tester.
- Each day, the results are compared to those of other testers and if there is a match, the tester is notified and can view via his or her Home Page.

# IT IS IMPORTANT TO PROVIDE A 'CLEAN' SAMPLE

- A 'clean' sample is gained by firm swabbing (for a full minute) on first one inside cheek with one phial & swabber and with the 2nd swabber doing the 2<sup>nd</sup> inside cheek.
- First thing in the morning before water or any medication is best.
- This is to enable excellent DNA extraction and then safe storing for any future orders you might choose.
- If it is not pulled out of the freezer for future tests very often, theoretically, the extracted DNA will last for 25 years.

# YOUR FTDNA HOME PAGE

- If you have one, upload your Gedcom but you can also load this manually.
- Add all the ancestral surnames you know (and their geographical area) into your personal Profile (see next slide) because it helps matches choose what they will write to you.
- When YOU write to a match, please avoid saying “you are my cousin”. Instead write about your family and where they lived – always offer information if you wish to receive information.
- Carefully consider your privacy and sharing options.

# ADDING ANCESTRAL SURNAMES

Genealogy

Account Information **Genealogy** Privacy & Sharing Project Preferences Notification Preferences

Earliest Known Ancestors **Surnames**

**Current Surnames**

Surname	Location	
Wauchope/Walkup	probably Edinburgh, Scotland	<a href="#">EDIT</a> <a href="#">DELETE</a>
Watt	Clackmannon, Scotland	<a href="#">EDIT</a> <a href="#">DELETE</a>
Wat	Rosehill, Midlothian, Scotland	<a href="#">EDIT</a> <a href="#">DELETE</a>
Thiele	Hessen, Germany	<a href="#">EDIT</a> <a href="#">DELETE</a>
Slee	Devonshire, England	<a href="#">EDIT</a> <a href="#">DELETE</a>
Semple	Jedburgh, Scotland	<a href="#">EDIT</a> <a href="#">DELETE</a>
Scott	Harden, Scotland	<a href="#">EDIT</a> <a href="#">DELETE</a>
Schulze	Austria	<a href="#">EDIT</a> <a href="#">DELETE</a>
SAVAGE	Glasgow, Scotland	<a href="#">EDIT</a> <a href="#">DELETE</a>
Rutherford	Scotland	<a href="#">EDIT</a> <a href="#">DELETE</a>

**Add New Surname**

Surname

Location

[SAVE](#)



# PRIVACY AND SHARING

- Many people choose to NOT share – this is their right and if you like to share, this will frustrate you.
- Realise that many only test to satisfy a “nagging” relative and personally they have zero interest in genealogy.
- Join Surname and Geographical projects and get to “know” the administrator of that project.
- Try to include the administrator in your testing decisions – it is an investment, so please take advice.
- Every testing firm has differing rules – read them.

# DNA TESTING IS AN INVESTMENT

- You carry all your ancestors within your DNA.
- You are investing for your children and their children.
- Choose which firm you invest with. It becomes your “bank” and no two firms offer exactly the same.
- Know what return you want from your investment.
  - **Are you merely curious?**
  - **Are you (or someone in your family) adopted?**
  - **Do your medical ‘weaknesses’ or strengths matter to you?**
  - **Is your surname really important to you (your father’s line)?**
- Choose your beneficiary (to inherit).