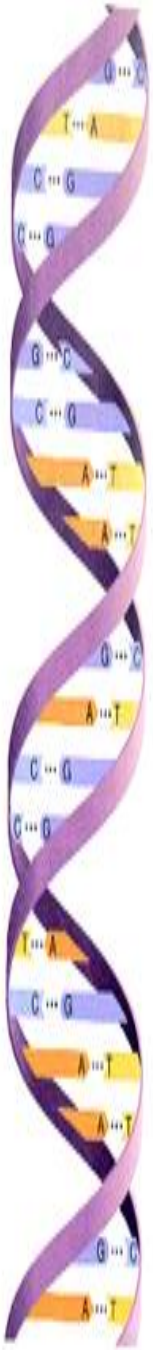


# **Might you use DNA to aid your genealogy Research Or just ignore it?**

Presenter: Gail Riddell

Presentation Date: August 2015



If you use DNA, you will get certainty, BUT decisions need making

1

- What is it you want to discover and who in your family is willing to test?

2

- There are three main firms to use – all are different and all give differing outcomes through different testing.

3

- There are three main tests:- Y-DNA (males only); Mitochondrial DNA; Autosomal DNA (Each test and the X Chromosome require learning).



If you use DNA, you will also be facing risks!

1

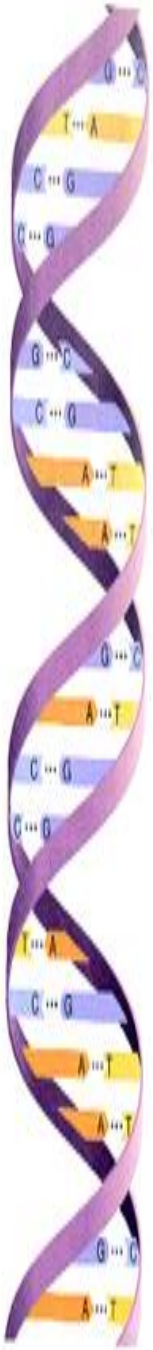
- What if the tester discovers that their mother (or father) is really their sister or brother (or cousin or )?

2

- What if the chosen firm sells or discontinues such testing?

3

- What if you discover your carefully worked Family Tree is actually WRONG?



# 1 Do you know what you want to learn?

**Every tester has a slightly different reason to test – here are some examples**

**Are you a member of a famous family or of UK nobility?**

**Who is your Mother's mother or your Father's mother?**

**Who is your Mother's father or your Father's father?**

**Is the person with your same surname a member of your family?**

**Are you just curious and want to learn what you might discover?**

**Do you and your siblings have the same parents (or grandparents etc.)?**



## 2a Which firm to choose?

**All firms have positives and negatives!**

**23andMe** – offers autosomal, health and an indication of Y-DNA & mtDNA Haplogroups. Results can be transferred to Gedmatch.

[www.23andMe.com](http://www.23andMe.com)

**Ancestry** – offers autosomal. Indicates matches via your Ancestry family Trees. Results can be transferred to both FTDNA and to Gedmatch.

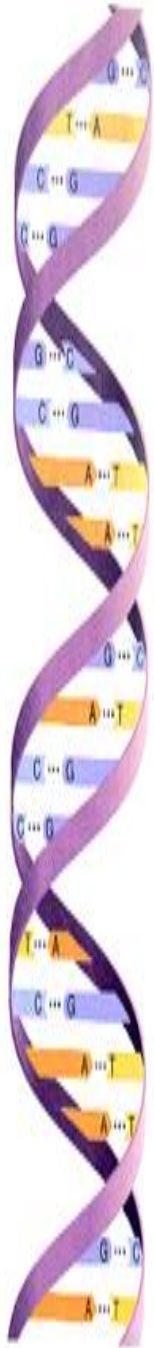
[www.ancestry.com](http://www.ancestry.com)

**FTDNA** – offers every genealogical DNA test. Will indicate matches for all tests, including via FTDNA family trees. Results transferrable to Gedmatch.

[www.familytreedna.com](http://www.familytreedna.com)

**Gedmatch** – does not offer tests. It is a central free 'receiving' site which accepts only autosomal results for comparing results tested with other firms.

[www.gedmatch.com](http://www.gedmatch.com)



## 2b Which firm to choose?

What sort of sample is needed by which firm?	Contact information
<b>23andMe</b> – this is a saliva sample and taken in the privacy of your own home. (Often difficult for the elderly).	<a href="http://www.23andMe.com">www.23andMe.com</a>
<b>Ancestry</b> – this is a saliva test and taken in the privacy of your own home. (Often difficult for the elderly).	<a href="http://www.ancestry.com">www.ancestry.com</a>
<b>FTDNA</b> – this is a ‘cheek swab’ test and taken in the privacy of your own home. (Often difficult for those who will not continue to swab each cheek for a full minute).	<a href="http://www.familytreedna.com">www.familytreedna.com</a>

## 2C Testing company major positives/major negatives



Positives	Negatives
<p><b>23andMe</b> – the health option (only available in Canada and UK presently, but due to return to all testers). Testing in ALL countries.</p>	<p><b>23andMe</b> – the expense to ship to USA (Currently door-to-door via DHL courier US \$79.00). Only the autosomal test.</p>
<p><b>Ancestry</b> – the speed of their testing and the enormous sets of resources on their site.</p>	<p><b>Ancestry</b> – Only the autosomal test. Testing only in USA, Britain, Australia and New Zealand. You will also need to maintain your annual subscription.</p>
<p><b>FTDNA</b> – the unused sample is stored; (you can continue to test for numerous ‘add-ons’ as this cutting edge science develops); All projects have dedicated administrators with many extra ‘tools’ and knowledge to aid. Testing in ALL countries.</p>	<p><b>FTDNA</b> – the time taken to receive results.</p>



## 3 Which test to choose?

**Taking a “DNA test” means deciding which test(s) will get you what you want**

**Y-DNA** – is purely the Y chromosome ; ONLY men have this chromosome. It is received by sons from their father, who in turn received it from his father who received it from his father and so on back through some 2,000+ years. (Sometimes called the surname test).

**Autosomal DNA** – is the 22 pairs of chromosomes (one from each parent) plus the X chromosome. Each parent received their own pairs of chromosomes from each of their parents – who received theirs from each of their parents. The recombination of each pair is not predictable! Nor can we rely on how many generations this will cover. **The oldest generation is BEST!**

**mtDNA** – this is not a chromosome but the energy power house that fuels your cell. Every human being receives this from their mother. It alters extremely slowly and so it goes back for many, many thousands of years. It is used for ethnicity as opposed to genealogy.





## 3 Which test to choose?

Taking a “DNA test” means choosing from “AMY”

**A for autosomal**

**Anyone can test this**

**M for mitochondrial**

**Mother line**

- anyone can test this
- select mtDNA FMS

**Y for Y-DNA**

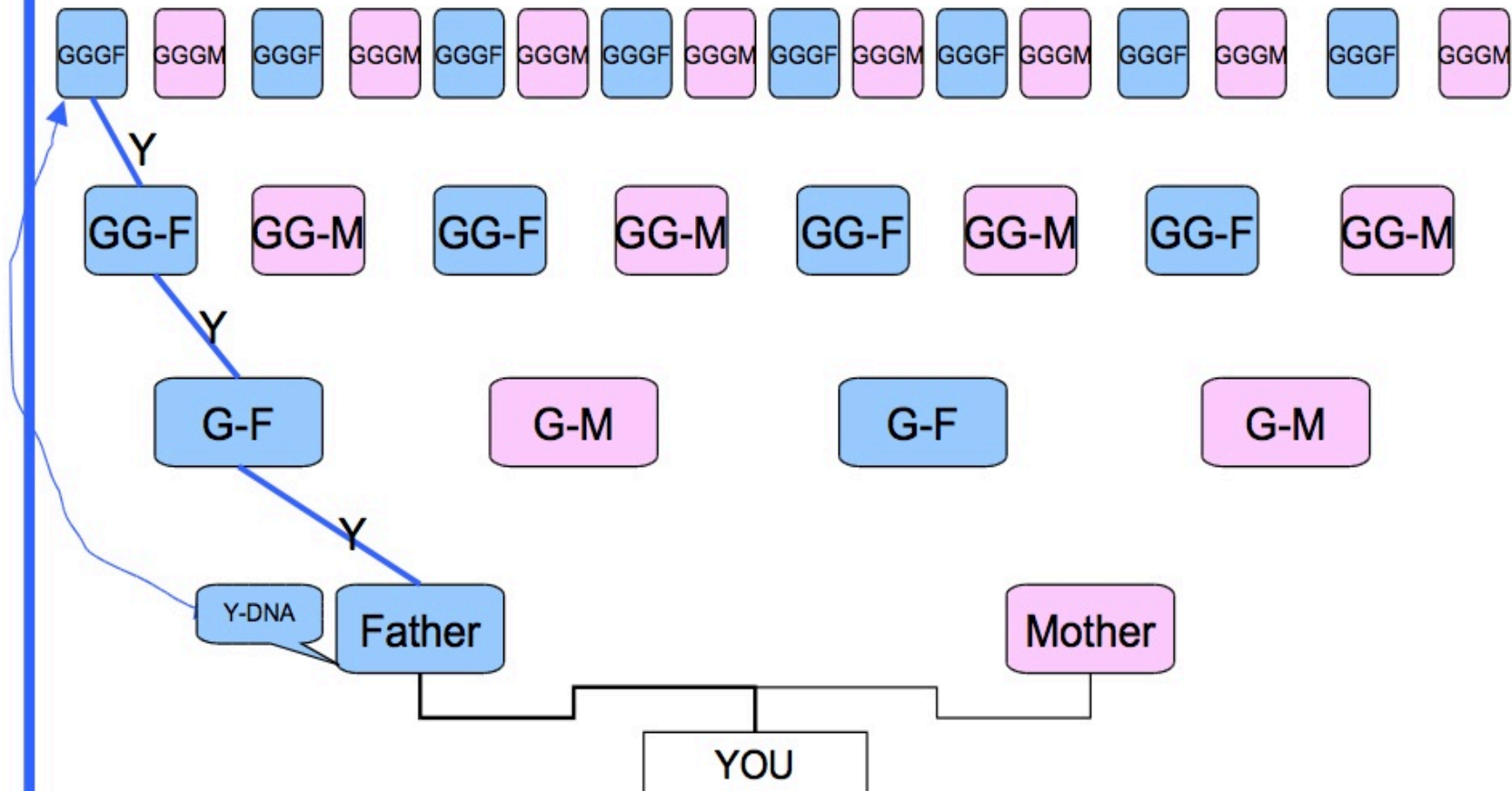
**The “Y-front” line**

- only men test this
- select at least Y-67

# A graphic for the Y-DNA test

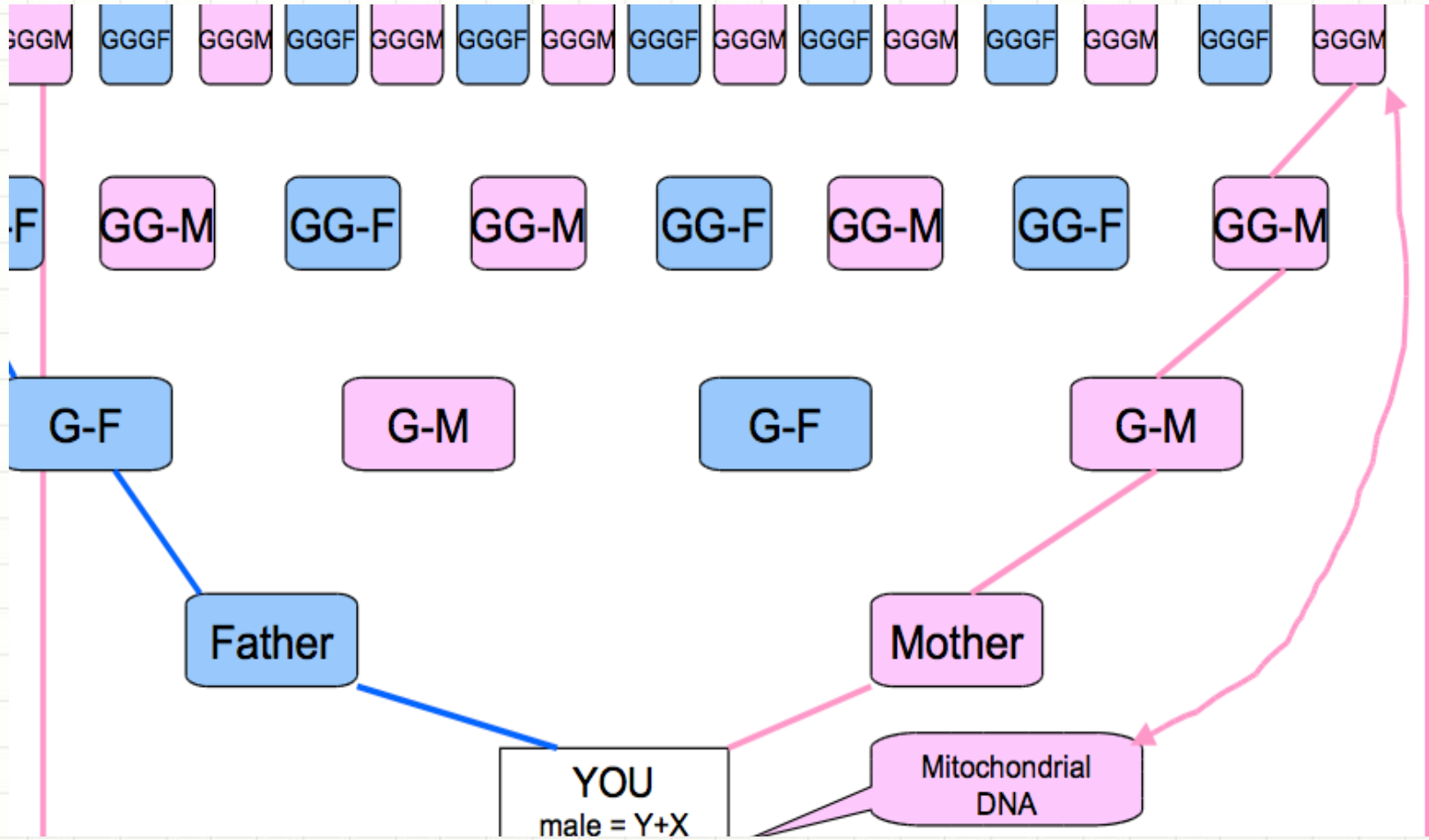


## yDNA aka Y-STR Testing



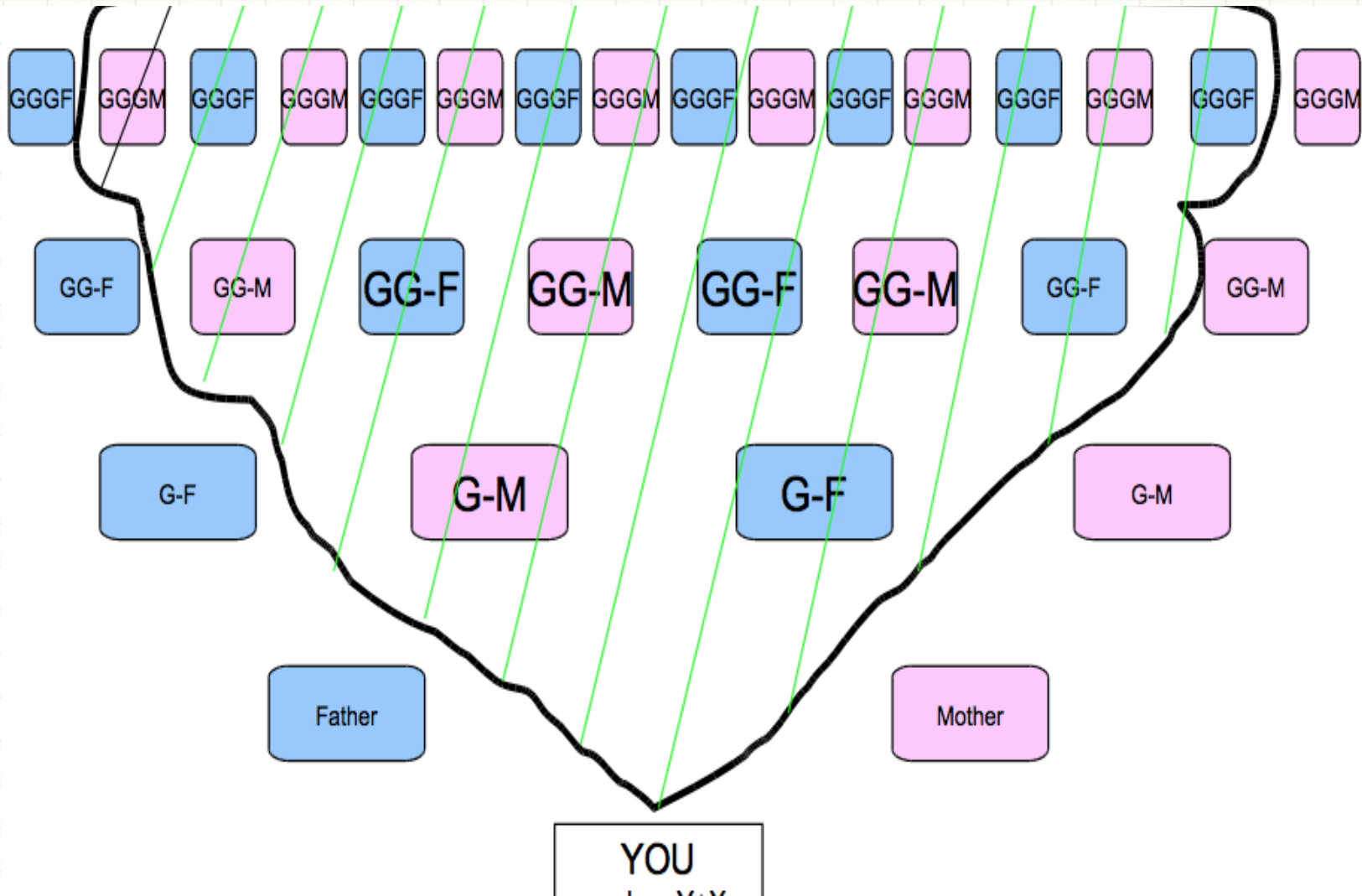


# A graphic for the mt-DNA test

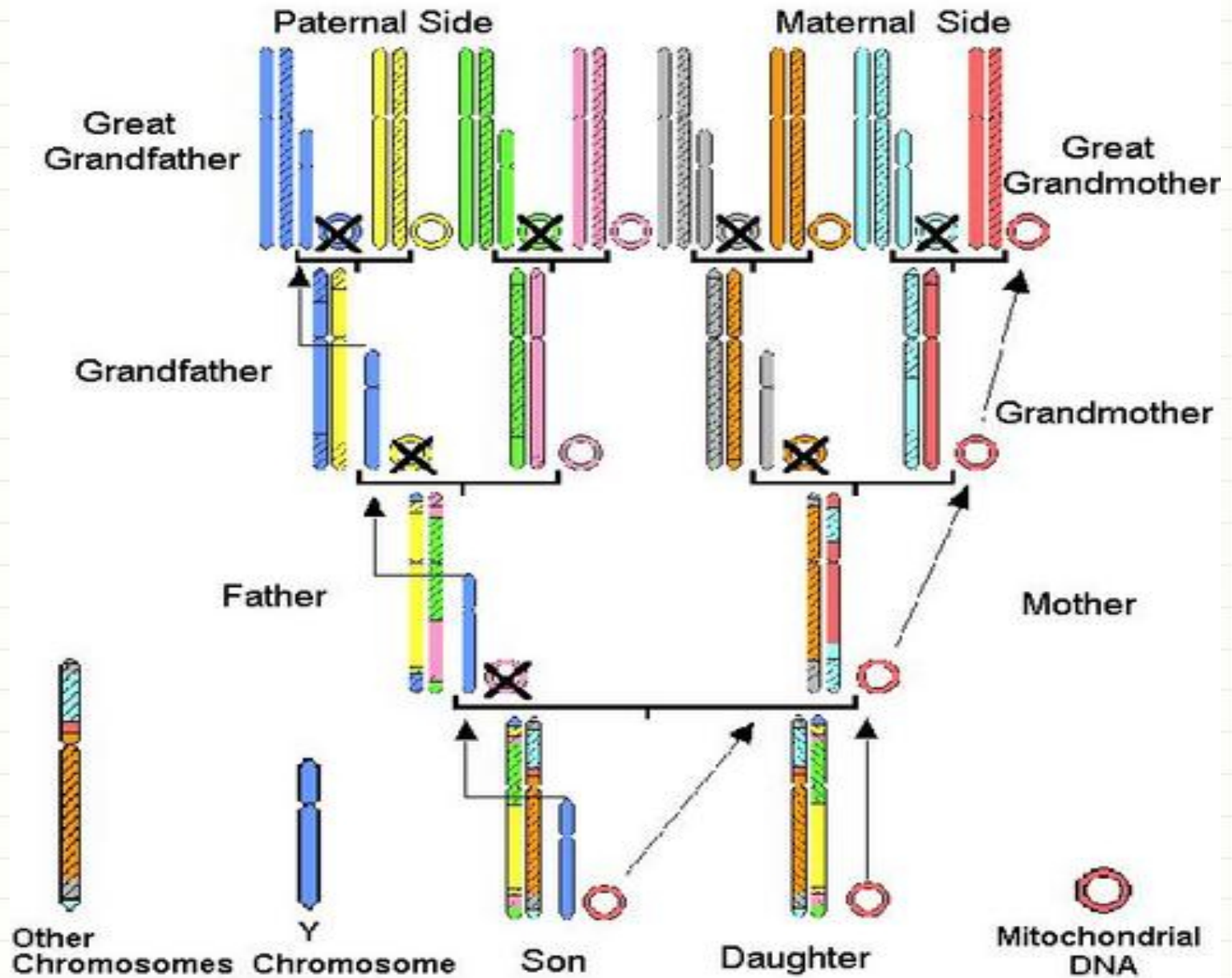




# A graphic for the at-DNA test



# Bringing the test spectrum together



# Summary of what you will receive from testing

- If you want to prove your Direct paternal line
  - Get a male member to test his Y-DNA (Y-67 minimum)
- If you want to learn your Direct maternal ethnicity
  - Get your mitochondrial DNA tested (the full spectrum)
- If you want to expand your Family Tree
  - Get many family members to test autosomal DNA

**Remember A M Y**



# Summary



- Define your challenges
  - Technological as well as personal
- Set realistic expectations
  - Understanding of this topic is not achieved overnight
- Keep your eye on your goal
  - Use blog-sites and Internet tools
- **Remember A M Y**



# Questions?

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