

UPDATE – DNA FOR AGS



By John Adam Farris, AGS Member

How to Determine the Closeness of Your Relationships with Your New Genetic Cousins

If you have carefully followed the steps in my last two columns, then you have:

1. Successfully transferred your atDNA results from any of the four US testing companies (23andMe, Ancestry, FTDNA and MyHeritage) to GEDmatch.
2. Printed out your genetic cousin results from the GEDmatch analysis called “One-to-many matches” which are listed in the order of closest relationships. You have noticed that each new cousin has a value of cM = Centimorgans. The closer the relationship, the larger the cM number. cM measures the length of commonality between you and your match looking at all 22 chromosomes (omitting the sex chromosomes).
3. Done a “one-to-one compare” to verify that this match is not accidental before you contacted any of your new genetic cousins.
4. Contacted via EMAIL those that look valid. I hope you luck out like I have and find new cousins with lots of new data on your family.
5. Posted your own family tree for others to see.

IF YOU HAVE DONE ALL OF THE ABOVE YOU ARE NOW READY TO DETERMINE CLOSENESS

- A. To determine the closeness of your relationship with each new genetic cousin, open: <<< <https://dnainter.com> >>>, register for FREE and enter the cM value. It will show all of the possible relationships for that match.
- B. To learn even more, join <<< <https://isogg.org> >>> for FREE = the International Society of Genetic Genealogists. It has tutorials covering all aspects of using and understanding your DNA results. However, for this study look at autosomal DNA as follows:
 - In the left column under “Page Contents” click on “ISOGG Wiki”;
 - Under “Getting Started” click on “Autosomal DNA”;
 - Double click on the chart on the right hand side to open “Autosomal DNA Statistics” and review to get a full education about atDNA.

- C. Towards the bottom of this section you will find the cM chart by Dr. Blaine T. Bettinger showing the range of cM values (low-average-high) for each relationship. Here are example results from this very important cM chart:

1C = 553-874-1225

2C = 46-233-515

3C = 0-74-217

4C = 0-35-127

- D. As you may remember, because the DNA gets scrambled with each conception, each sibling gets a different portion of DNA from each grandparent. Thus you can have a proven third or fourth cousin on your paper trail that you won't match with your atDNA. But any second or third cousins that do show up on your atDNA matches are almost always a true kin. However, fourth cousins must be proved by a paper trail, because your match with them could be accidental.

I hope you have fun with this!