

2019 DNA Workshop Requirements

DNA WORKSHOPS – GENERAL INFORMATION

All workshops rooms are set up classroom style with tables and chairs. All have electrical hook-ups for laptops and tablets.

FRIDAY, MAY 31 - 8:30 AM TO 12:00 PM

Identifying Family DNA Patterns and Contacting Matches

Presenter: **Emily D Aulicino, MEd**

Your DNA test results have arrived. You have a list of people you match. What is next? Learn what you can do before contacting your matches to assist you in finding the common ancestor you share with your match. Learn what to do when your matches contact you first, and the steps to follow when contacting your matches. Understand how to find the common ancestor you share with your match.

Level: Beginner, Intermediate

Workshop Requirements: To maximize everyone's use of time and provide for a clear understanding of the process for finding your common ancestor, it would help if attendees could complete the following.

1. Test at one of the following companies: Family Tree DNA (Y-DNA, mtDNA or preferably Family Finder), AncestryDNA, 23andMe, or MyHeritage.
2. Transfer to or test at the other companies, if possible. This is not totally necessary for the workshop, but beneficial to the tester.
3. Learn a spreadsheet program such as Excel or Open Office Calc. You only need to know how to add and delete columns and custom sort. If possible upload the DNA segments from your testing company to your spreadsheet. AncestryDNA testers can only upload the list of matches, so if you have tested at AncestryDNA only, transfer your results to Family Tree DNA for \$19 and upload the DNA segments from that company. If you cannot locate how to upload your DNA segments from your company, email me in advance for help.
4. Email me (aulicino@hevanet.com) any questions ahead of time so they can be compiled and addressed at the workshop, although additional questions will be taken as time permits.

Getting Your "ACGT" Together: Organizing Your DNA Evidence for Success

Presenter: **Paul Woodbury**

Organizing your DNA evidence is like aiming for a moving target. The results are constantly changing! Begin today to get your genetic genealogy research in order. Focus your organization around research objectives. Utilize company and third-party tools (such as DNAGedcom Client and MedBetterDNA) for research logs and evidence analysis. Create, explore and interpret genetic network visualizations of the relationships between your matches (NodeXL, Gephi and

RootsFinder).

Level: Intermediate, Advanced

Workshop Requirements:

1. Participants must have performed an autosomal DNA test with at least one of the four major DNA testing companies (23andMe, AncestryDNA, Family Tree DNA or MyHeritageDNA). Alternatively, participants must have access to the DNA test results of at least one autosomal DNA kit at one of the four major DNA testing companies and must have permission from the test subject to analyze their test results. Participants should have the login information for their kits available for use in the workshop.
2. Participants must bring a functional laptop (not a tablet) with which they are comfortable. The computer should be fully charged for the workshop.
3. Participants will need to subscribe to <http://dnaged.com> as a Silver (\$5.00 monthly) or Gold (\$10.00 monthly) subscriber prior to the beginning of the course.
4. PC Users will need to download NodeXL Basic (free version of NodeXL) from <https://www.nodexlgraphgallery.org/Pages/Registration.aspx>.
5. Mac Users will need to download Gephi from <https://gephi.org/>
6. Participants will need to have some type of spreadsheet software such as Microsoft Excel.
7. Other Optional Recommendations:
 - a. Participants may wish to purchase a Pro Plan at RootsFinder.com.
 - b. Participants may wish to install the Chrome add-on “Medbetter DNA”
 - c. Participants may wish to install the Chrome add-on “DNA Match Labeling”
 - d. Participants may wish to create an account at Genetic Affairs (<https://geneticaffairs.com/>)

Please note that the functionality, availability and applicability of DNA organizational tools are in constant flux. As a result, there may be some changes to the final workshop requirements for this course. By the time this course is offered, some of the above-mentioned requirements may no longer be applicable based on developments and changes in the field of genetic genealogy. A final workshop requirement list will be communicated two weeks before the workshop.

What Are the Odds? (WATO) Workshop

Presenter: [Leah Larkin, Ph.D.](#)

WATO is a revolutionary tool for placing a person's atDNA (autosomal DNA) matches into a tree. You can quickly build a descendant tree and rank hypotheses for where the “target person” belongs, allowing you to better focus your research. All without segment data! We will review how to identify an MRCA (most recent common ancestor). Then we will build a tree in WATO, place hypotheses, and interpret the results.

Level: Advanced

Workshop Requirements:

WATO is a free, online tool that uses autosomal DNA data to help you determine the most likely placement for someone in an otherwise known tree. The so-called “target” can have unknown

parentage or be a recent descendant of someone with unknown parentage. In this workshop, we will learn how to articulate a research question, build trees in WATO, place hypotheses for the target, and interpret the results. We will use teaching examples as well as data from your own results. You will need to bring a laptop that can access the internet and has an internet browser (preferably Chrome). Access to an online genealogy database is strongly recommended.

Instructions from Dr. Larkin: To have the best learning experience in the workshop, please do the following before we meet:

1. Create a free account at <https://dnainter.com/account/register>.
2. Bookmark these two pages for easy reference:
<https://dnainter.com/tools/probability>
<https://dnainter.com/tools/sharedcmv4>
3. Ensure that your target is in as many autosomal databases as possible. Ideally, they will have tested at AncestryDNA and be in other databases as well. Instructions on how to transfer AncestryDNA data to other companies are here: <https://thednageek.com/how-to-transfer-your-ancestrydna-test-to-other-databases/>. Plan on doing transfers at least 2 weeks before we meet.
4. Compile information for a case where you already know the target's tree—a trial run, if you will. For that target:
 - a. Select a branch of the target's tree where the target has several DNA matches. The matches do not need to have tested at the same company as one another.
 - b. Identify a shared ancestor or ancestral couple for those cousins, preferably 2–5 generations back from the tested cousins.
 - c. Build a descendant tree showing how each tested cousin descends from the shared ancestor/couple. Include birth and death dates whenever possible.
 - d. Compile the shared DNA amounts (in centimorgans) that each tested cousin shares with the target. The matches can be from any of the testing companies, although for FTDNA you will want to subtract out segments less than 7 cM. If a cousin is known to have tested but shares no DNA with the target, note that, too.
5. Compile information for a case where the target's placement in the tree is truly unknown.
 - a. Using the shared matches/ICW features at the testing companies, identify a group of DNA matches who all descend from the same ancestor or ancestral couple. You should have at least 5 such matches (more is better) who share 40 cM or more with the target.
 - b. Build a descendant tree showing how each DNA match descends from the shared ancestor/couple. Include birth and death dates whenever possible.

- c. Compile the shared centimorgans that each DNA match shares with the target. The matches can be from any of the testing companies, although for FTDNA you will want to subtract out segments less than 7 cM. If a cousin is known to have tested but shares no DNA with the target, note that, too.
6. Check your email in the weeks prior to the workshop. I will follow up with each of you to make sure you've been able to complete the prerequisites and to share any updated instructions. Email me at theDNAgeek@gmail.com if you have any questions. Please put "WATO WORKSHOP AT SCGS JAMBOREE" in the subject line.

DNA Painter

Presenter: [Blaine T Bettinger, PhD, JD](#)

DNA Painter (www.dnapainter.com) is a powerful chromosome mapping tool for genealogists. We will learn how to use the tool, and how to incorporate the results into our genealogical research.

Level: Beginner, Intermediate, Advanced

Workshop Requirements:

DNA Painter is an online tool that allows users to assign ("map") segments of DNA to ancestors based on sharing (or lack of sharing!) those segments with known relatives. During class you will not only learn the theory of chromosome mapping and how to use DNA Painter, you will actively map segments of DNA to your DNA Painter profile. Accordingly, you will need the following BEFORE class:

1. A laptop that can access the internet (WiFi is provided but see the note below about hotspots) and has an internet browser (preferably Chrome although other browsers may work).
2. Test results – for the person you want to map – at one or more companies OTHER than AncestryDNA. Since AncestryDNA does not provide segment data we can't use it for chromosome mapping (if this sentence doesn't make sense yet, no worries because you'll be a pro by the end of class!).
3. Identified relatives (preferably beyond first cousin) of the person you want to map; the more the better. These are genetic matches at the testing company for which you've identified the genealogical relationship; we will map the segments of DNA that you share with these matches.
4. A FREE account at DNA Painter (www.DNAPainter.com). Consider a 6-month subscription to DNA Painter for USD \$30 or one-year for USD \$55. Although **NOT** necessary for class, we will be examining at least one feature that is available only to subscribers.

5. OPTIONAL: test results from any testing company (including AncestryDNA) transferred to a free account at GEDmatch (www.GEDmatch.com).

IMPORTANT: If you have a WiFi hotspot, please bring it! Although internet access is usually very good in the classrooms, nothing is guaranteed. If people bring their own WiFi hotspots and are also willing to share, we will have enough internet access even if there are any classroom issues.

Email me at blainebetter@gmail.com if you have questions. Please put "DNA PAINTER WORKSHOP AT SCGS JAMBOREE" in the subject line.

**Autosomal DNA Chromosome Mapping with Medical
Presenter: [Tim Janzen, MD](#)**

This workshop will review chromosome mapping techniques including the following: basic chromosome mapping, inverse chromosome mapping, extension of mapped DNA regions, mapping DNA segments to populations or geographical locations, and visual phasing (at GEDmatch and 23andMe). In addition, mapping of specific genetic traits and SNPs that have medical implications will also be covered.

Level: Advanced

Workshop Requirements: Participants need to bring laptops to the workshop loaded with Excel or other spreadsheet program.

Instructions from Dr. Janzen. I realize that the attendees at this workshop will have varying amounts of data that they can accurately map. In order to maximize the use of everyone's time for this workshop I would suggest that everyone do the following if at all feasible prior to the workshop:

1. Test at least one of your parents or one of your children (in addition to yourself) with an autosomal test if at all possible. Testing at 23andMe, with Family Tree DNA's Family Finder test, and/or MyHeritage are preferable to Ancestry.com's AncestryDNA test for the purposes of this workshop..
2. Upload at least one raw data file from 23andMe, Family Finder, Ancestry.com's test, MyHeritage, or Living DNA to GEDmatch for yourself and for a parent or child (assuming that they are available for testing). If you have tested other known relatives, then also upload their data to GEDmatch, particularly if they have only tested at Ancestry.com.
3. Download your aggregate matching segment data from Family Finder from the chromosome browser feature as well as from 23andMe's DNA comparison tool within 3 to 4 days prior to the workshop. Also do this for any parents or children that you have tested.
4. Contact all of your closest matches at 23andMe, in Family Finder, at Ancestry.com, and at MyHeritage and encourage them to upload their raw data files to GEDmatch.

5. Make at least a \$10 donation to GEDmatch prior to the workshop so that you are able to be a Tier 1 member there prior to the workshop. Then download your matching segment file from GEDmatch using the Tier 1 utility "Matching Segment Search." I suggest you use a 7 cM/500 SNP threshold for this download. Also do this for any parents or children that you have tested.
6. If you aren't already familiar with the program Excel, become familiar with the basic features of that program prior to the workshop and have it installed on your laptop or tablet. Other spreadsheet programs that can handle CSV files are also reasonable to use if you would prefer to use a different program other than Excel.
7. If you have tested at 23andMe I suggest you contact as many of your matches in DNA Relatives as feasible prior to the workshop and send them an invitation to share ancestry reports with you if they haven't already opted into open sharing.
8. If you have tested three siblings at 23andMe or have uploaded the raw data files from 3 siblings into GEDmatch, then bring the matching segment data for the shared half-identical regions and fully-identical regions for the siblings with you to the workshop if you are interested in starting the process of visual phasing.
9. Bring all of the appropriate downloaded spreadsheets referred to above with you to the workshop. Also bring the passwords to accounts of any of the relatives you have tested.

Those of you who don't have very much data to map can work on creating consolidated matching segment data files if you haven't already created them. I will try to give as much individual help as feasible during the workshop. The amount of time you will have available for doing your own chromosome mapping or visual phasing will depend on how much free time is left over after we have collectively gone through the didactic portion of the workshop.