

G4G

Genetics for Genealogy

This page provides a platform to organize and distribute workshop and course materials on the genetics of genealogical relationships. Here you will find slide presentations from past events along with links to web pages containing detailed explanations of certain topics.

Source: [Bryant McAllister](#), PhD

Overview: With a single mouse-click sophisticated genetic tests for human ancestry analysis are available directly to consumers at a relatively low cost. Advances in human genetics over the past 30 years have enabled the emergence and growth of this "recreational genetics" marketplace. My goal is to introduce the science underlying these tests, compare the products delivered by the companies that dominate the US marketplace (e.g., 23andMe, AncestryDNA, Family Tree DNA, MyHeritageDNA, and The Genographic Project), and demonstrate their utility. Personal genetic analysis provides a window into the past at different time scales, including genetic inferences of pre-genealogical ancestry along with the discovery of genetic relationships between cousins as a genealogical research tool. They also provide the means to glean information from your own DNA recipe.

Objectives

- Evaluate the products and deliverables of direct-to-consumer DNA tests
- Conceptualize the organization of the human genome and properties that contribute to its variability among individuals
- Build proficiency in the methods and interpretation of test results of human ancestry and biological relationships

Blog



[Exponential Growth of the AncestryDNA Database](#)

[McAllister, Bryant F](#) posted on Sep 15, 2017
I posted a few times in the summer of 2015 when 23andMe and AncestryDNA both reached the threshold of genotyping their first million customers. I'm consistently amazed at how popular these commercial DNA tests have become. In this year, 23andMe has grown to 2 million customers in the 10 years <https://mediacenter.23andme.com/about-us/> since launching the first version of their DNA testing service. AncestryDNA now has 5 million customers <https://www.ancestry...>

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Resources

[List of Resources](#)

[Guide to SNP Matching](#)

[Comparison of DTC Testing Companies](#)

Upcoming Events

August 2019 meeting of the [DNA Interest Group - Iowa City](#)

[Integrating Deep & Shallow Genealogical DNA Tests](#)

The most commonly used DNA tests for genealogical purposes (AncestryDNA, 23andMe, MyHeritage, etc.) work most effectively matching 3rd cousin and closer relatives. This program will focus on a strategy that integrates between these shallow tests within a genealogy and tests of deep genealogical relationships using mtDNA or Y chromosome. Genealogical questions that stimulate a need for these specialized DNA tests will be presented along with an approach that leverages connections with DNA matches to identify appropriate individuals for further testing.

August 27, 6-7pm, Room A, Iowa City Public Library

Complete this [interest form](#) if you would like to be notified by email of future classes and events.

Past Events & Materials

DNA Interest Group

[DNA Segments - triangulate or exasperate](#) - July 2019

[Clustering DNA Relatives into Family Lines](#) - June 2019

[Case Study: Using atDNA to Find a German Hometown](#) - May 2019

DNA Databases and Crime Scene Investigation - April 2019

Ethical implications of recent genetic advancements - March 2019

[An introduction to epigenetics](#) - February 2019

[Thank You for Coming](#) (Film Screening) - November 2018

Tips on getting more from an AncestryDNA test - October 2018

[Predicting your traits](#) - September 2018 ([slides](#), [application](#))

[Inclusion improves medial genetics](#) - August 2018

[Who we are and how we got here](#) - a book discussion ([Table of Contents and links to reviews and materials](#)) - July 2018

[DNA: your partner in crime?](#) - June 2018

[Pharmacogenomics: How Genes Inform Drug Therapy](#) - May 2018

The Human Genome - April 2018

Why the Y? (and not the mtDNA) - March 2018

[What Are You? Race, Ethnicity and Genetic Testing](#) - February 2018

Changes in the DNA Marketplace - January 2018

[Doggy DNA](#) - November 2017

[Identifying and Predicting Relationships](#) - October 2017

[Reference Pedigree and Shared cM Summary](#)

[Family History Revealed: Part 2 - Finding](#) - September 2017

[Family History Revealed: Part 1 - Searching](#) - August 2017

[Saigon to Sioux City](#)

[Archaic Ancestry](#) - July 2017

[Genetic Communities™ at AncestryDNA](#) - June 2017

DNA Mythbusters - May 23, 2017

DNA Day 2017 - Personalizing Genetics Education - April 25, 2017

[Student Genetic Ancestry Testing](#) - Dr. Charles Aquadro, Cornell University

Interpreting SNP Data - March 28, 2017

Ancestry Prediction - February 24, 2017

[Exploring the DNA Marketplace](#) - January 24, 2017

Presentations

Genetics for Genealogy: navigating the DNA marketplace

Genealogical Society of Linn County Iowa, Cedar Rapids, IA - January 26, 2018

[Slides](#), [Summary](#), [Guide to SNP Matching](#)

DNA Connections and Digging for the Root of "Our" - M19 - McAllister Family Tree

Clan Mcallister of America Gathering, Memphis, TN - August 11, 2018

[Slides](#)

The Personal Genome: Navigating the DNA Marketplace

Triangle Club, Iowa City, IA - February 18, 2018

[Full pdf Slides ppt](#)

Using DNA in Genealogy: Navigating the DNA Marketplace

Franklin Avenue Library, Des Moines, IA - February 21, 2017

[Slides Handout](#)

The Personal Genome: The Past Revealed through Genetic Tests

UIAA Lifelong Learning - November 9, 2016, 6:30 pm

[Slides](#)

Courses - October 2016

Genetics for Genealogy: Hands-On Computer Workshops

Kirkwood Regional Center at The University of Iowa, Room 60

Getting to Know Your DNA Relatives - October 5 & 6, 2016

[Guide - SNP Matching](#)

[Slides - Oct. 5](#)

[Slides - Oct. 6](#)

[Shared Matches Worksheets](#)

Building DNA Families - October 12 & 13, 2016

[Guide - SNP matching](#)

[DNA Family Worksheet](#)

[DNA Summary Spreadsheet](#)

[Slides - Oct. 12](#)

[Slides - Oct. 13](#)

Courses - August 8-11, 2016

Genetics for Genealogy: Hands-On Computer Workshops

John and Mary Pappajohn Education Center, Des Moines, IA

Getting to Know Your DNA Relatives - August 8 & 9, 2016

[Guide - SNP Matching](#)

[Concept map](#)

[Slides - Aug. 8](#)

[Slides - Aug. 9](#)

Building DNA Families - August 10 & 11, 2016

[Guide - SNP matching](#)

[DNA Family Worksheet](#)

[DNA Summary Spreadsheet](#)

[Slides - Aug. 10](#)

[Slides - Aug. 11](#)

2016 Spring Conference - Iowa Genealogical Society

DNA: Unlocking the Code (Syllabus)

April 9, 2016 - Des Moines, IA

Session 1 - Navigating the DNA Marketplace ([slides](#))

Session 2 - Connecting Cousins for Genetic Genealogy ([slides](#))

Session 3

- Option A - Getting More from Your SNP Data (Advanced - [slides](#))
- Option B - Small-Group Tutorials (Beginner)

Session 4 - Ancestry Analysis from DNA ([slides](#))

Spring 2016 Senior Course Schedule

Genetics for Ancestry, Genealogy and more

Week 1, Feb. 4 - DNA and the Human Genome

[DNA & Your Personal Genome](#)

[Potential Consequences of DNA Testing](#) (written for a seminar course)

[Comparison of DNA Testing Options](#)

Week 2, Feb. 11 - Ancestry Analysis from DNA

[Genealogy to Trees: Inheritance and Tracing Ancestry Near and Far](#)

[Mitochondrial Eve & Y-Chromosome Adam](#)

Week 3, Feb. 18 - Connecting Cousins for Genetic Genealogy

[Autosomal Inheritance](#)

[Genome Comparisons](#)

Week 4, Feb. 25 - Recreational Genetics

