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

**November meeting of the DNA Interest Group - Iowa City**

**Documentary Film Screening, *Thank You for Coming***

November 27, 6-8pm, Room A, Iowa City Public Library

At the November meeting of the DNA Interest Group – Iowa City, we will have a free screening of *THANK YOU FOR COMING*, a powerful documentary about friendship, genealogy, DNA, and the meaning of family in today’s changing world.

Documentary filmmaker Sara Lamm discovered as an adult that she was conceived via sperm donor. With humor and compassion, she hunts for the donor and documents the surprising connections she makes along the way. When she meets a potential half-sibling she gets a break in the case—using DNA and genetic genealogy, the two team up to search together, investigating nature, nurture and their shared drive to know the truth. The film sparks meaningful conversation about parenthood, childhood, creativity, human connection, and love.

Visit [https://www.thankyouforcomingmovie.com/](https://www.thankyouforcomingmovie.com/) to view the trailer.

Complete this [interest form](https://www.thankyouforcomingmovie.com/) if you would like to be notified by email of future classes and events.

## Past Events & Materials
<table>
<thead>
<tr>
<th>DNA Interest Group</th>
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<tbody>
<tr>
<td>Tips on getting more from an AncestryDNA test - October 2018</td>
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<tr>
<td>Predicting your traits - September 2018 (slides, application)</td>
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<tr>
<td>Inclusion improves medial genetics - August 2018</td>
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<tr>
<td>Who we are and how we got here - a book discussion (Table of Contents and links to reviews and materials) - July 2018</td>
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<td>DNA: your partner in crime? - June 2018</td>
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<td>Pharmacogenomics: How Genes Inform Drug Therapy - May 2018</td>
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<td>The Human Genome - April 2018</td>
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<td>Why the Y? (and not the mtDNA) - March 2018</td>
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<td>What Are You? Race, Ethnicity and Genetic Testing - February 2018</td>
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<td>Changes in the DNA Marketplace - January 2018</td>
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<td>Doggy DNA - November 2017</td>
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<td>Identifying and Predicting Relationships - October 2017</td>
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<td>Reference Pedigree and Shared cM Summary</td>
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<td>Family History Revealed: Part 2 - Finding - September 2017</td>
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<tr>
<td>Family History Revealed: Part 1 - Searching - August 2017</td>
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<td>Saigon to Sioux City</td>
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<td>Archaic Ancestry - July 2017</td>
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<td>Genetic Communities™ at AncestryDNA - June 2017</td>
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<td>DNA Mythbusters - May 23, 2017</td>
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<td>DNA Day 2017 - Personalizing Genetics Education - April 25, 2017</td>
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<td>Student Genetic Ancestry Testing - Dr. Charles Aquadro, Cornell University</td>
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<td>Interpreting SNP Data - March 28, 2017</td>
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<td>Ancestry Prediction - February 24, 2017</td>
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<td>Exploring the DNA Marketplace - January 24, 2017</td>
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Presentations

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
<table>
<thead>
<tr>
<th>Courses - August 8-11, 2016</th>
</tr>
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<tbody>
<tr>
<td><strong>Genetics for Genealogy: Hands-On Computer Workshops</strong></td>
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<tr>
<td>John and Mary Pappajohn Education Center, Des Moines, IA</td>
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<tr>
<td>Getting to Know Your DNA Relatives - August 8 &amp; 9, 2016</td>
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<td>Building DNA Families - August 10 &amp; 11, 2016</td>
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<tr>
<th>2016 Spring Conference - Iowa Genealogical Society</th>
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<tr>
<td><strong>DNA: Unlocking the Code (Syllabus)</strong></td>
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<tr>
<td>April 9, 2016 - Des Moines, IA</td>
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<td>Session 1 - Navigating the DNA Marketplace (slides)</td>
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<td>Session 2 - Connecting Cousins for Genetic Genealogy (slides)</td>
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<td>Session 3</td>
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<td>Session 4 - Ancestry Analysis from DNA (slides)</td>
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<td>Week 1, Feb. 4 - DNA and the Human Genome</td>
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<td>DNA &amp; Your Personal Genome</td>
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<td>Potential Consequences of DNA Testing (written for a seminar course)</td>
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<td>Comparison of DNA Testing Options</td>
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<td>Week 2, Feb. 11 - Ancestry Analysis from DNA</td>
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<td>Genealogy to Trees: Inheritance and Tracing Ancestry Near and Far</td>
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<tr>
<td>Mitochondrial Eve &amp; Y-Chromosome Adam</td>
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<td>Week 3, Feb. 18 - Connecting Cousins for Genetic Genealogy</td>
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<tr>
<td>Autosomal Inheritance</td>
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<td>Genome Comparisons</td>
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<td>Week 4, Feb. 25 - Recreational Genetics</td>
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