

## **KERRY FARMER**

### **Title**

'DNA for Genealogists' : Introducing the DNA tests that can be used as tools in family history research.

### **Summary**

DNA testing allows us to find others who share our ancestors and also to test the accuracy of our constructed family trees. This presentation introduces the concepts of DNA, the tests available to genealogists, and how they can be used to answer questions about relationships and as additional tools for family history research.

### **Abstract**

This presentation introduces the basic concepts of genes and chromosomes and the three main types of DNA tests available to genealogists: Y-chromosome (Y-DNA); mitochondrial (mtDNA); and autosomal (atDNA). By examining the DNA inherited from our parents (that they in turn inherited from **their** ancestors) and comparing that to the genetic material that others have inherited, we can draw conclusions about whether or not we share ancestors in common with those others.

As more genetic tests become publicly available, and as prices fall, genealogists can more readily use results from DNA tests as additional tools in their family history research. Some possible uses include:

- in surname studies (to identify whether those with a surname in common also share ancestors in common)
- to connect family trees that otherwise lack documentary evidence
- to test the accuracy of constructed family trees (whether relationships in a family tree are confirmed by DNA) and
- to confirm or disprove relationships in the attempt to identify an illegitimate ancestor.

As well as considering the possible additional information that DNA might provide it is also important to understand some of the limitations – such as the fact that DNA cannot tell you the name of a shared ancestor, but rather makes predictions based on percentages. Higher resolution tests provide more precise predictions.

This presentation explains the genealogical DNA tests available and how to interpret the test results from the three dominant companies (Family Tree DNA, 23 and Me, and Ancestry.com). With an understanding of the information that these tests can provide, genealogists can use genetic testing to supplement more traditional family history research methods.

### **Audience**

All levels