

## DNA: SOME QUESTIONS AND SOME ANSWERS

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### WHAT IS DNA?

The acronym “DNA” is short for the molecule DeoxyriboNucleicAcid, which carries the genetic information that determines how we look and how our bodies function. DNA can also determine a person’s susceptibility to certain diseases, allergies, and other medical conditions – but the Y-DNA test does not analyze these types of factors. Since DNA carries critical genetic information, it is now possible through advanced technology to compare the DNA of groups of related individuals. Varying degrees of matching (up to 99%) indicate the probability of connection of family members tested to each other and to a common ancestor.

### *A Common Misconception*

Perhaps a common misunderstanding is that DNA can tell you exactly who your ancestors are. This is not true – that is, unless you have a verifiable sample of their DNA, which might be centuries-old. But DNA testing **can** tell you to whom you are related if those persons take the appropriate test.

### WHAT MAKES THE Y-DNA TEST SO IMPORTANT TO THE DELANO KINDRED?

The Y-Chromosome has certain unique features:

- The presence of a Y-Chromosome causes maleness. This little chromosome, about 2% of a father's genetic contribution to his sons, programs the early embryo to develop as a male.
- It is transmitted from fathers only to their sons.
- Most of the Y-Chromosome is inherited as an integral unit passed without alteration from father to sons, and to their sons, and so on, unaffected by exchange or any other influence of the X-chromosome that came from the mother. It is the only nuclear chromosome that escapes the continual reshuffling of parental genes during the process of sex cell production.

It is these unique features that make the Y-Chromosome useful to genealogists.

### WHAT KINDS OF TESTS ARE AVAILABLE?

Companies such as Family Tree DNA (Houston, Texas), the company the Kindred uses, offer a variety of testing services (including Y-DNA) to their clients. Our tests, the 25-marker Y-DNA studies, cost \$148.00 each, the discounted family group rate.

Examples of other DNA tests are:

- mitochondrial DNA (mtDNA), traces the genetic traits that come down through the maternal line

ONLY to all children, both sons and daughters

- a combined mtDNA and Y-Chromosome test
- expanded Comprehensive DNA tests.

Family Tree DNA is a well-regarded company with many satisfied clients. To learn more about the company, visit [www.familytreedna.com](http://www.familytreedna.com).

### What Can the Y-DNA Test Reveal?

In brief, this test proves the blood connections (or lack of them) among male descendants of a common male ancestor. There are percentages of matching among different lines – the higher the match percentage, the greater the proof of a blood connection. A match of 99% is definitive.

### How Are the Test Results Presented?

Results are presented in the form of a chart which displays and compares the set of numeric values given to the 25 markers tested for each of the participants (who are identified only by their test kit numbers, not their names). A link to our Delano test results and an expanded version of this article has been posted on the public site, [www.delanoye.org](http://www.delanoye.org). Click on the Family Tree DNA link about half-way down the page.

### Can You Participate? Yes – and no.

**Yes! If you are a male with the surname**

**DELANO**, you are most welcome (and encouraged) to participate in the Family Tree Y-DNA study.

**Yes! If you are a direct male descendant from Philippe de Lannoy with a non-DELANO surname that changed from DELANO over the years** you are most welcome (and encouraged) to participate in the Family Tree Y-DNA study.

Please go to [http://www.familytreedna.com/surname\\_join.asp?code=Y81149&special=true](http://www.familytreedna.com/surname_join.asp?code=Y81149&special=true) for more information on testing and costs. Please request the Y-DNA25 (marker) test for the discounted group price of \$148.00. You will need to pay for the test yourself, as the Kindred Board voted only to underwrite \$600.00, which covered the cost of the first four tests (descendants of four different sons of Philippe). Please deal directly with Family Tree DNA, the testing company, to make your test kit purchase. When your kit arrives, please follow the instructions included to properly collect your sample, and then return it to Family Tree DNA, as directed. Your results will automatically be included on the comparison display chart with all the other Delano test results.

**No! If you are a male descendant who is descended through an ancestor’s daughter**, you should not participate because the Y-DNA results will not match.