INTERNATIONAL SOCIETY OF GENETIC GENEALOGY
The first society founded to promote the use of DNA testing in genealogy
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**From the Director**

The genetic genealogy community suffered an irreplaceable loss in the death of **Leo Little** on Wednesday, May 21, 2008. Leo was an early pioneer in genetic genealogy; his work helping hundreds, if not thousands. Of special interest to Leo was researching nulls on DYS 439. Leo founded the first null study at Family Tree DNA and successfully recruited hundreds of participants. While his forte was the null 439, Leo also compiled many pages of helpful tools and resources for genetic genealogists. Among them:

**Y-STR Allele Frequencies for haplogroups** - A table that lists the frequency a marker occurs in a particular haplogroup

**Interactive SMGF (FTDNA order) Search Utility** - Allows users to search the SMGF database using their results in FTDNA order

The complete compilation: **Eclectic Genetic Genealogy Information**

Leo was a mentor and friend to many in the genetic genealogy community and will be greatly missed. His work with null 439 will carry on and his compilations will continue to help many a newcomer to genetic genealogy.

-Katherine Borges
ISOGG Director


On May 21, President Bush signed the Genetic Information and Non-Discrimination Act (GINA) into law. Family Tree DNA has an excellent outline of GINA's protections on their **site**.

However, an article in **GenomeWeb Daily News** reported that, "The law will not be implemented immediately. The health insurance protections are expected to begin in about a year and the employment rules are to take full effect in about a year and a half, according to Genetic Alliance."

Even so, our gratitude goes to Senator Harry Reid (NV) for bringing GINA to a floor vote, to all Senators and House Reps. who voted "Yes" on GINA, to Senator Louise Slaughter (NY) for authoring the bill, to President Bush for signing it into law, and to all constituents who wrote in support of GINA.

## A Null Primer

A null produces a value of zero on an allele (marker) and can occur due to missing genetic material. A single

nucleotide polymorphism (SNP) in the flanking region can also cause a null result.

One of the most prevalent and thoroughly researched nulls occurs in DYS 439 (**see below**). Another frequently occurring null is DYS 425. Charles Kerchner founded the **Null 425 Project** in 2007. The cause of the null 425 is attributed to a RecLOH event which is the result of a missing SNP (a 't' is missing) This can be verified by the DYF371X test which will return a result of all 'c's for null 425s.

Another null, although much less frequently occurring, is DYS 448. In 2006, Family Tree DNA had approximately thirty null 448s in their database. Perhaps one of the largest family groupings to have the null 448 are the Tuckers. Further testing through the FTDNA Genomics Research Center on the Tuckers' null 448 reveals the cause to be missing genetic material. This deletion has been passed down through the Tuckers (ChasCitCo Group) by a common ancestor. The Tuckers are haplogroup R1a and the null 448 has also appeared in haplogroups R1b and E1b. Interestingly, a recent study published May 2008, "Dynamic nature of the proximal AZFc region of the human Y chromosome: multiple independent deletion and duplication events revealed by microsatellite analysis" by Balaresque, et al. did not contain any samples with a null 448 in the R haplogroup.

ISOGG maintains a null database in which members have entered their null allele values. Null values have been recorded for the following markers: 390, 425, 426, 439,
441, 448, 449, 464, 565, 607, H4, YCA II a/b.

While the term "null" is not applied when referring to a deletion in mitochondrial DNA, these deletions do rarely occur. A new study recently published, "**A Novel 154-bp Deletion in the Human Mitochondrial DNA Control Region in Healthy Individuals"** by D. Behar, et al. chronicles such a deletion discovered through public participation in the Genographic Project.
(For definitions, see the **glossary**)


**DNA in the News**
**Cavemen and their relatives in the same village after 3,000 years** - TimesOnline - 15 Jul 2008
**Traces of the Distant Past** - Scientific American - Jul 2008
**Adoptees use DNA to find surname** - BBC News - 18 Jun 2008
**Ancient Hair Reveals Greenland Eskimos' Roots** - NPR - 30 May 2008

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**Who Do You Think You Are? (Canada) - Measha Brueggergosman - CBC**

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# Featured DNA Project

**The Null 439 DNA Project**

Leo Little founded the **Null 439 Project** on 1 August 2006 but his research on the null 439 began much earlier. He first learned of his null value in October 2002 and when one of his Little cousins tested in 2003, Leo learned that the cousin also had the null. Other surnames began turning up with the null and further research on the null was conducted by the University of Arizona lab in 2004. The results revealed that the null was caused by a SNP in the flanking region as opposed to a deletion. U of A named the SNP "L1" AKA "The Little SNP". Taylor Edwards gave a presentation that included "The Little SNP" at the 2005 2nd International Conference on Genetic Genealogy in Washington, D.C.

James Fox joined the Null 439 Project as a co-administrator in 2007 and with Leo's passing, now administers the project with Blaine Bettinger. All null 439s are welcome to join!

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The ISOGG newsletter is a membership benefit of the world's first society founded for the promotion and education of genetic genealogy, ISOGG - The International Society of Genetic Genealogy. Membership is FREE! Members automatically receive the newsletter to share the latest news and happenings in the world of genetic genealogy.

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