

DNA Witness

A Presumptive DNA Test for
Bio-Geographical Ancestry



DNAPrint genomics

Louisiana Case

Gina Green



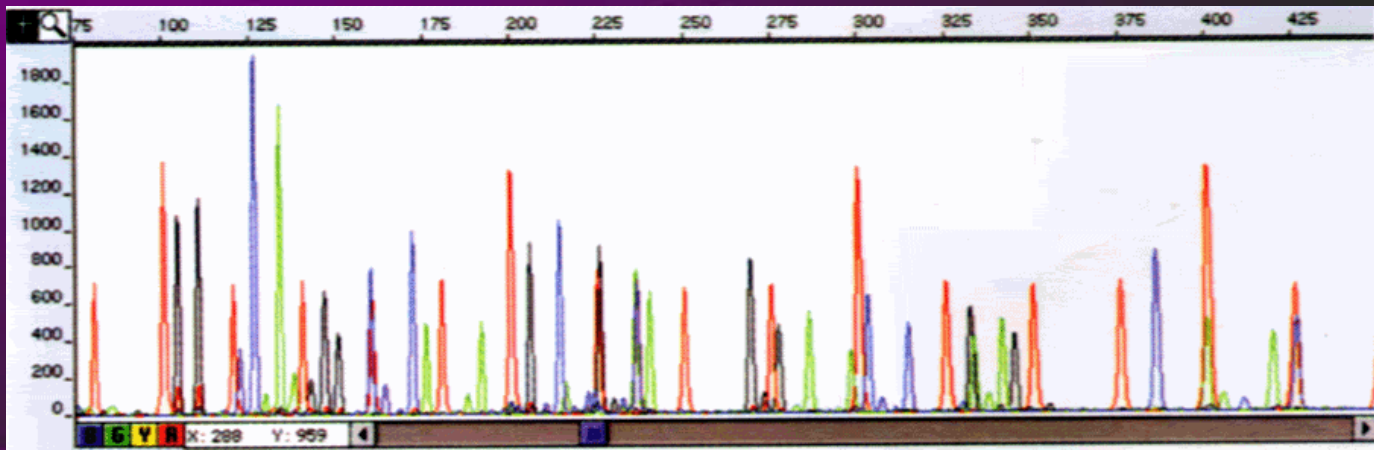
Baton Rouge

Charlotte Murray Pace



Baton Rouge

Pamela P. Kinamore



Louisiana Case



Louisiana Case

Trineisha Dene Colomb



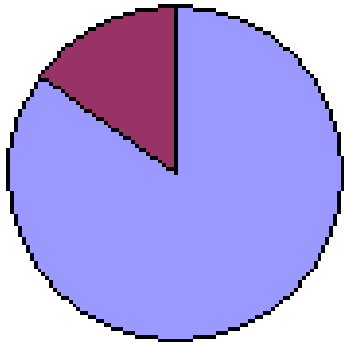
Lafayette



➤ Approximately 700 exclusions

Louisiana Case

Native
American
15%

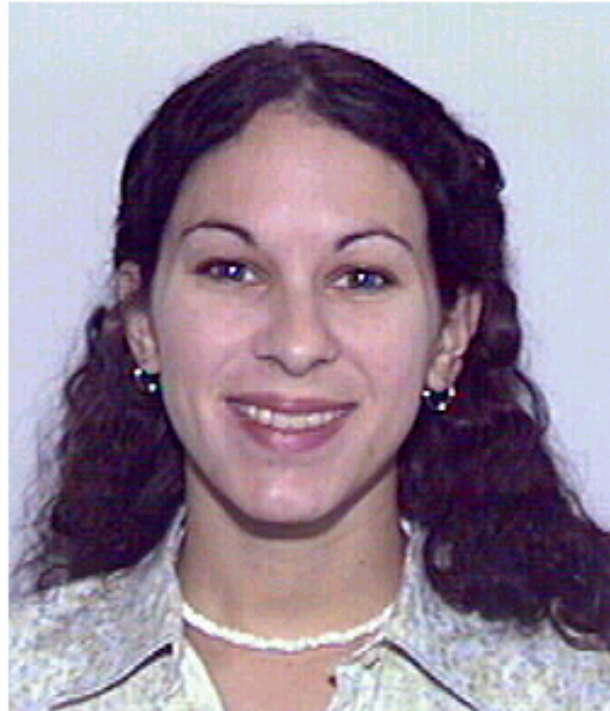


Sub-Saharan
African
85%



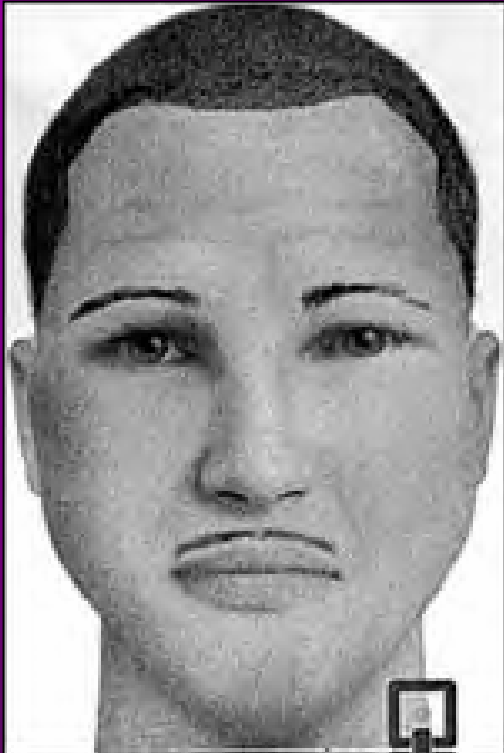
Louisiana Case

Carrie Lynn Yoder

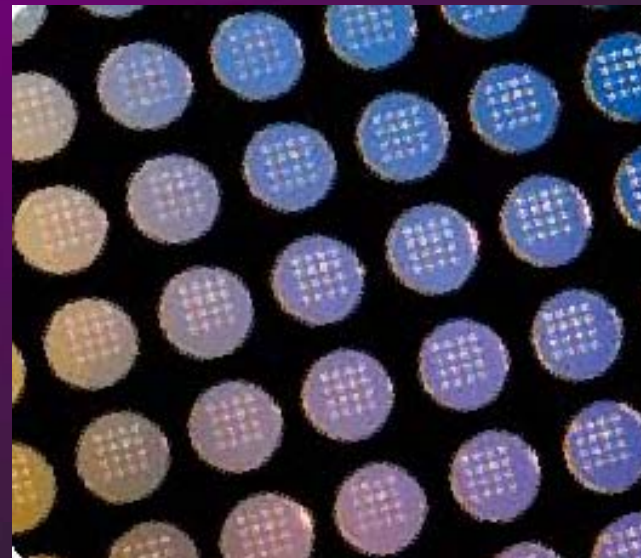
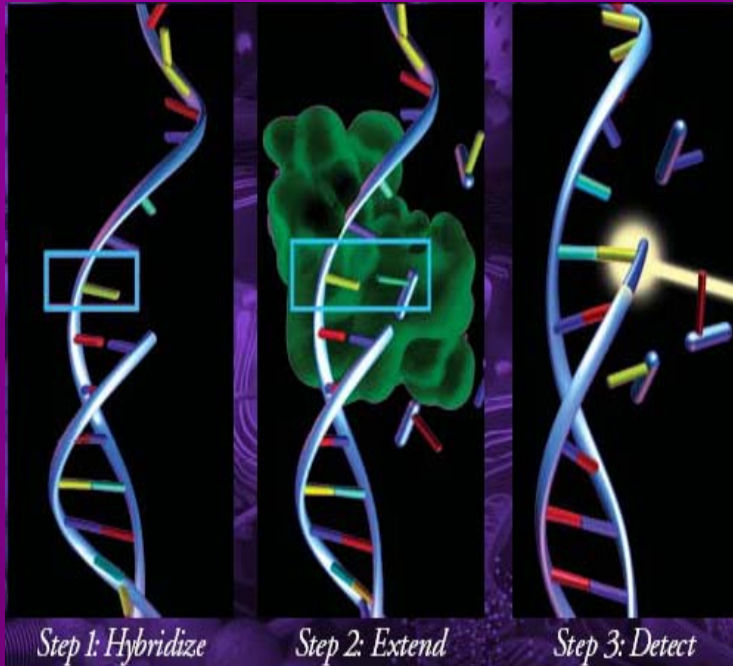


Baton Rouge

Louisiana Case

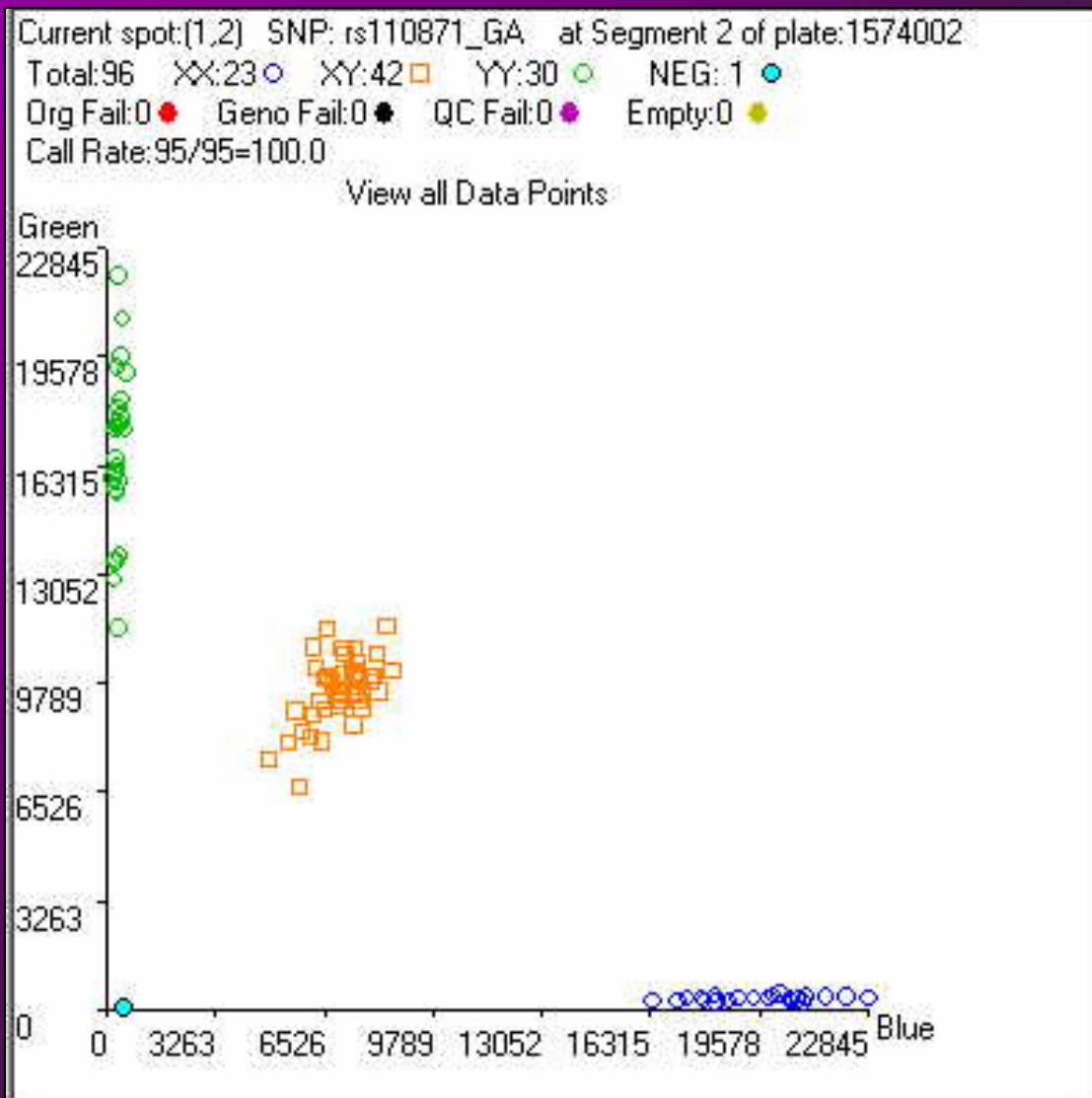


The Platform



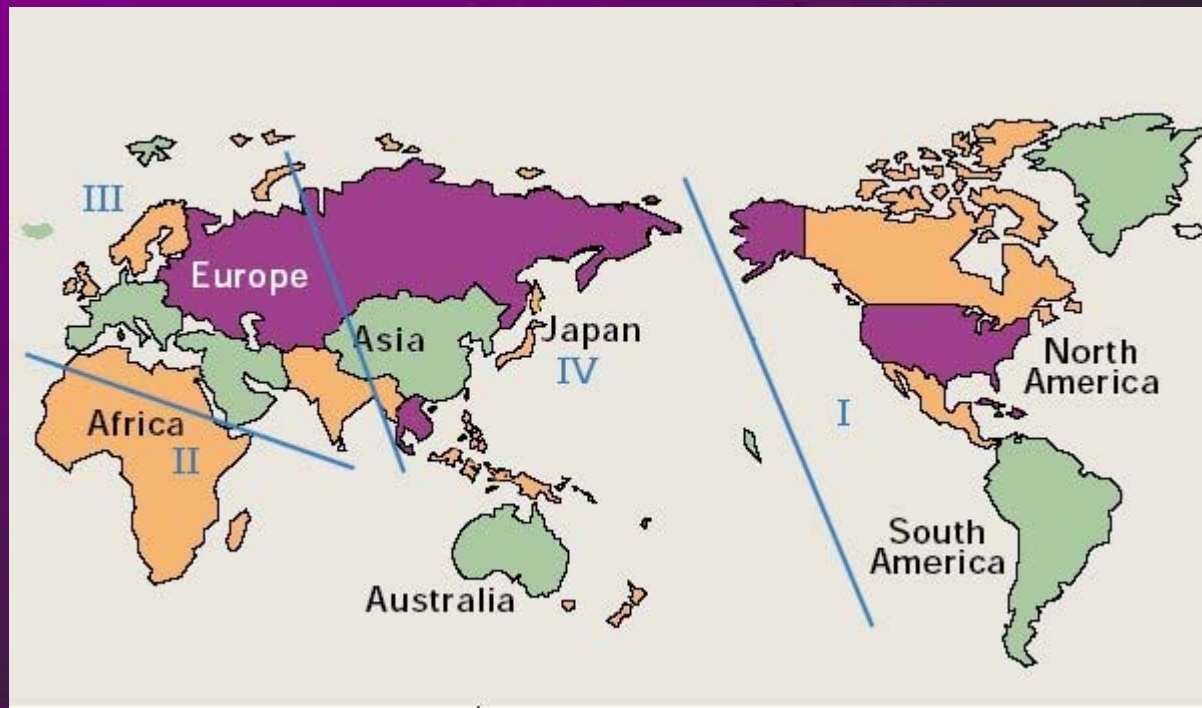
GENOME LAB™ SNPSTREAM®
GENOTYPING SYSTEM

Typical SNP Plot



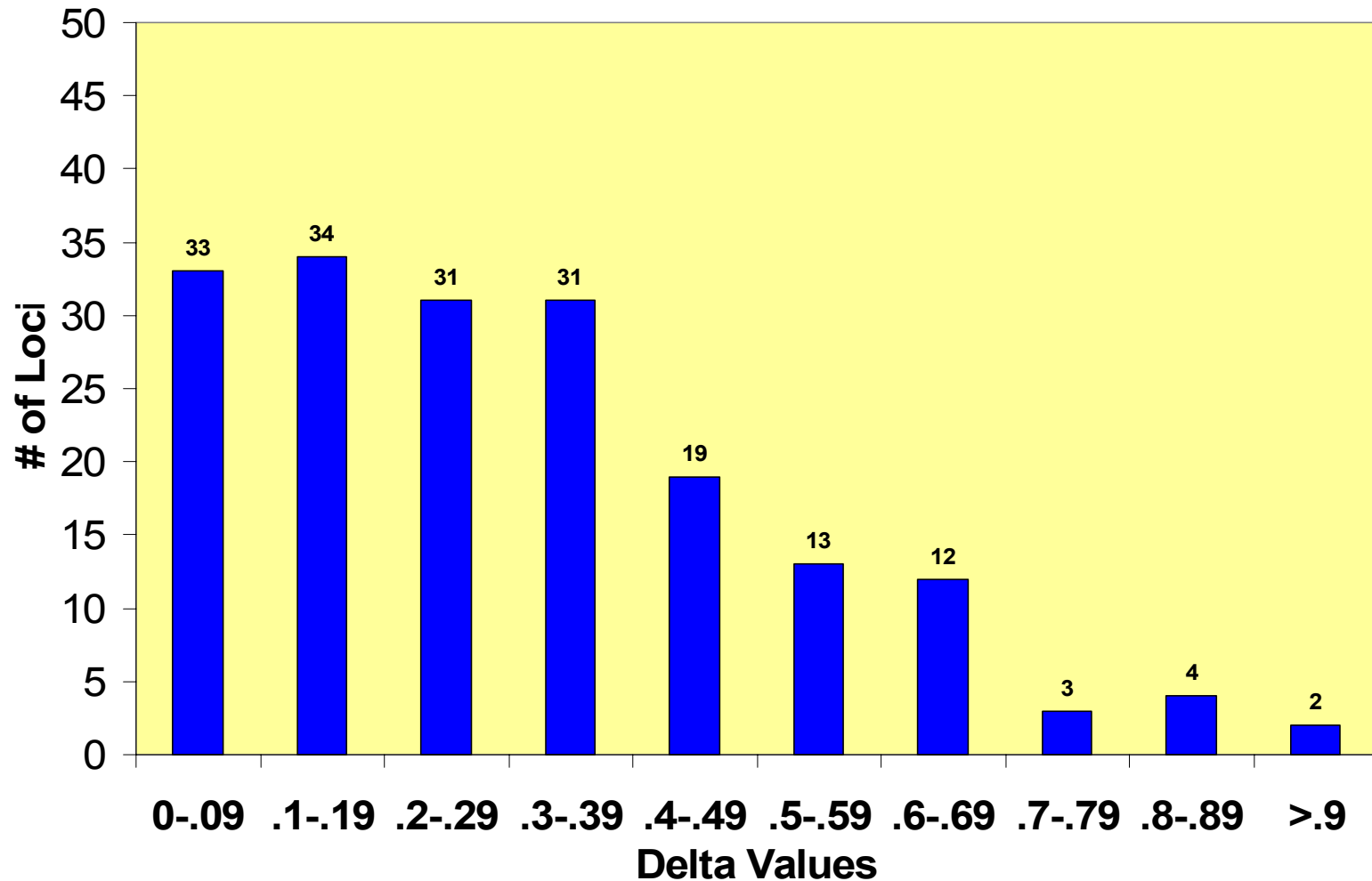
What is DNA Witness?

- 176 SNPs
- Presumptive DNA Test
- BGA
- Four Anthropological Groups



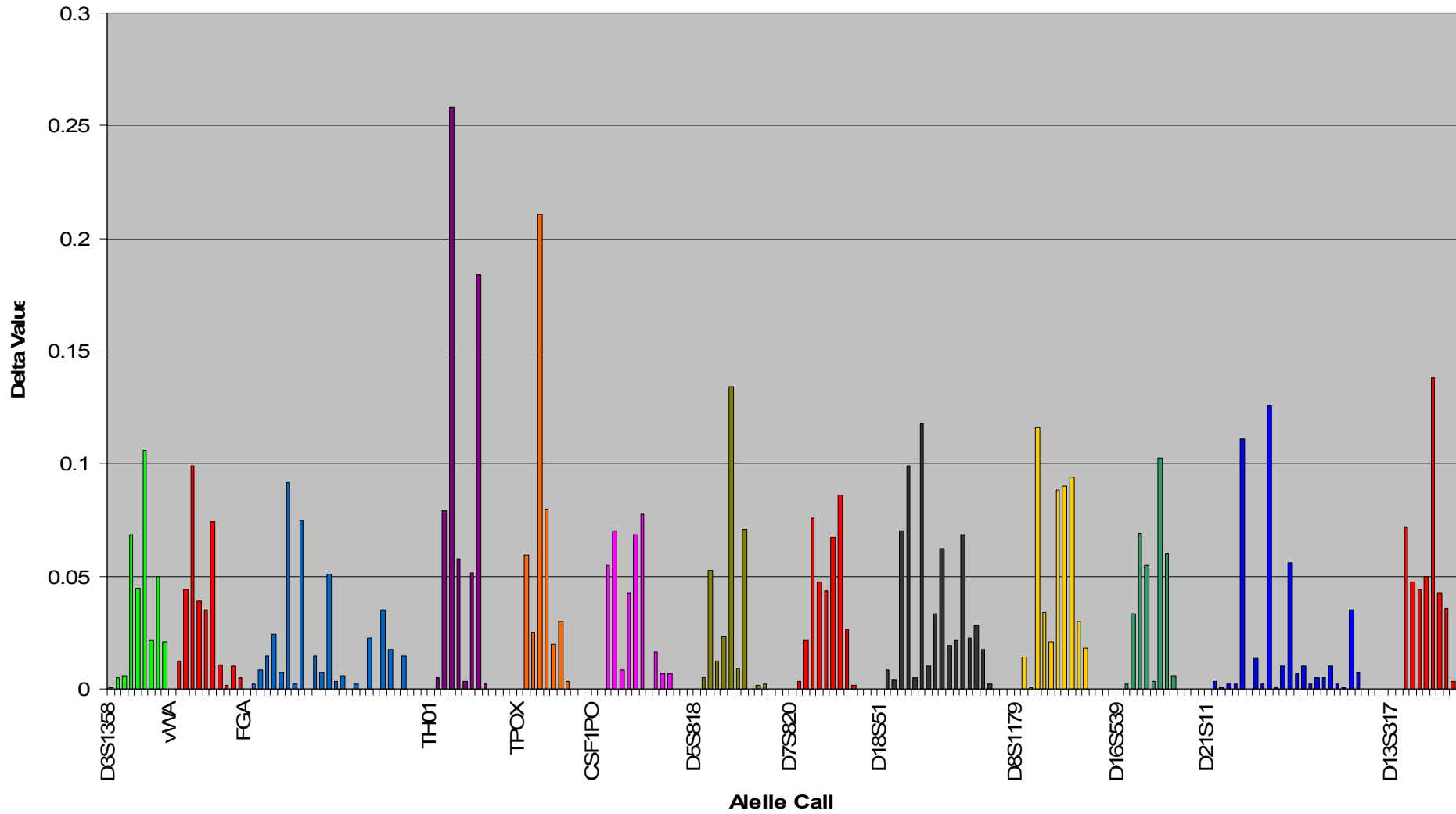
Ancestry Informative Markers

**DNA Witness: Ancestry Informative Markers (AIMs)
European vs. Sub-Saharan African**



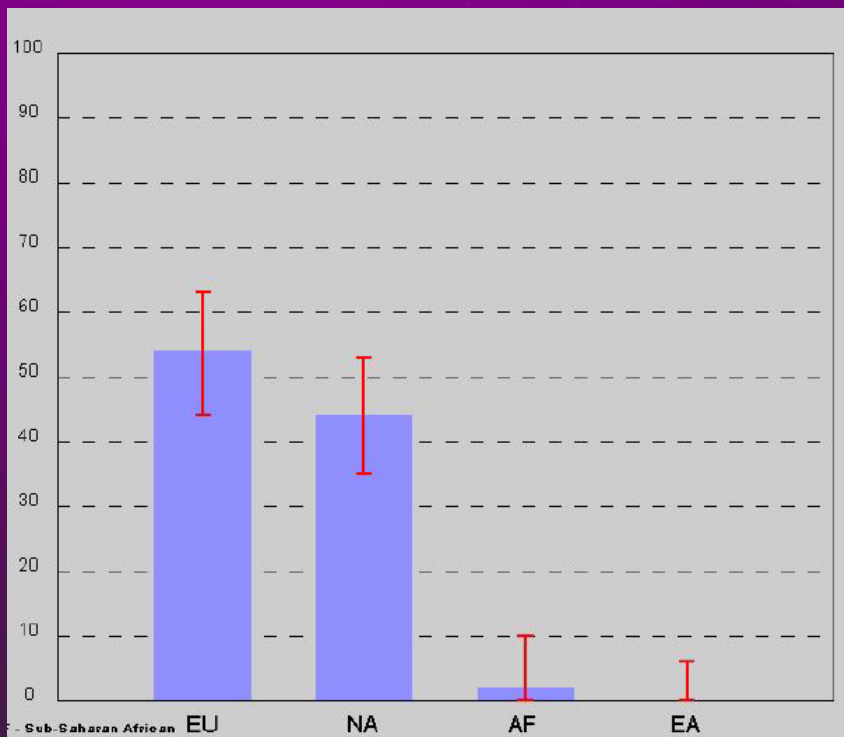
What About CODIS Loci?

CODIS Loci: Caucasian vs. African American



Anthropological

- Sub-Saharan African
- East Asian
- Native American
- European



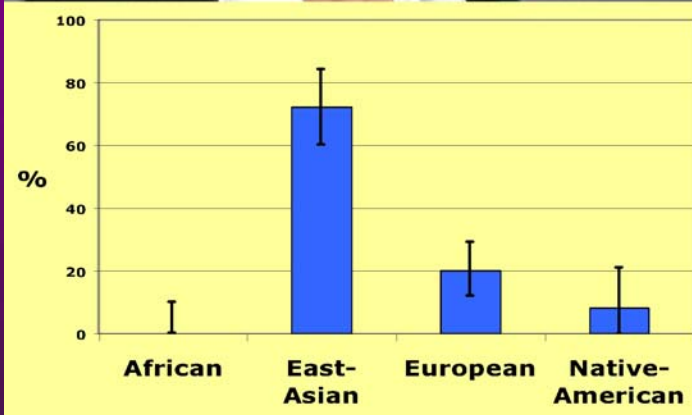
Geopolitical

- African American
- Caucasian-Greek, Italian, N. Euro
- Hispanic-Mexican, Puerto Rico
- American Indian
- Middle East
- North African
- Asian-Japan, Chinese
- Asian- S. E.
- South Asian-India
- Pacific Islander
- Atayal (Taiwan)
- Iberian
- Caribbean-Barbados

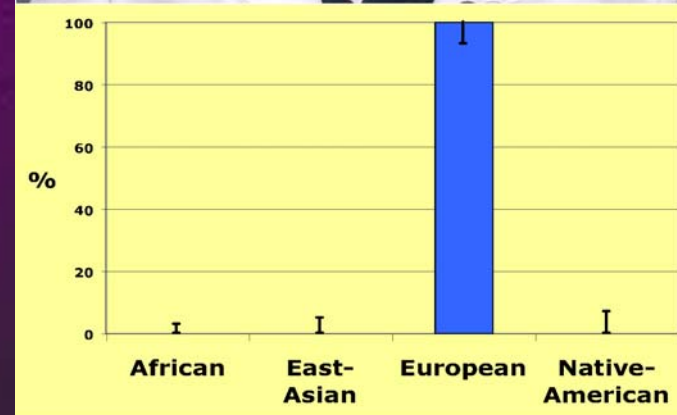
DNA Witness

Validation – Blind Studies

SDPD3



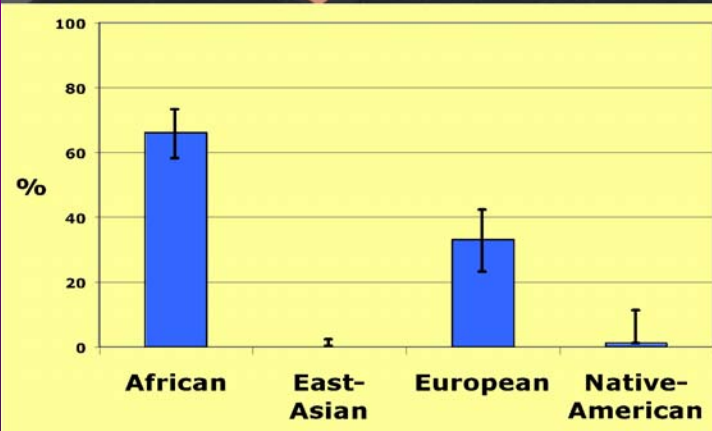
SDPD4



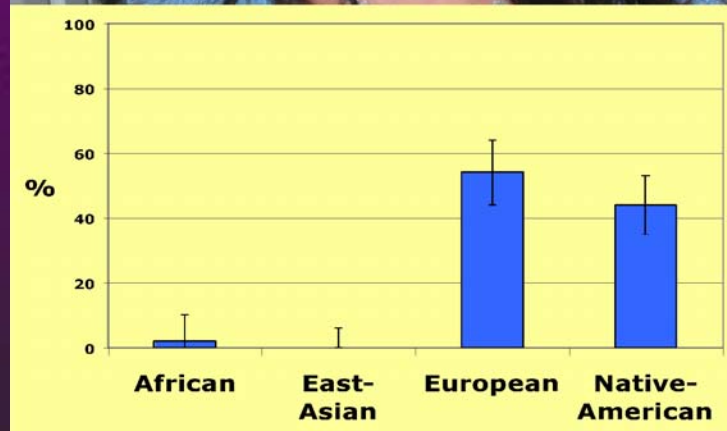
DNA Witness

Validation – Blind Studies

SDPD6



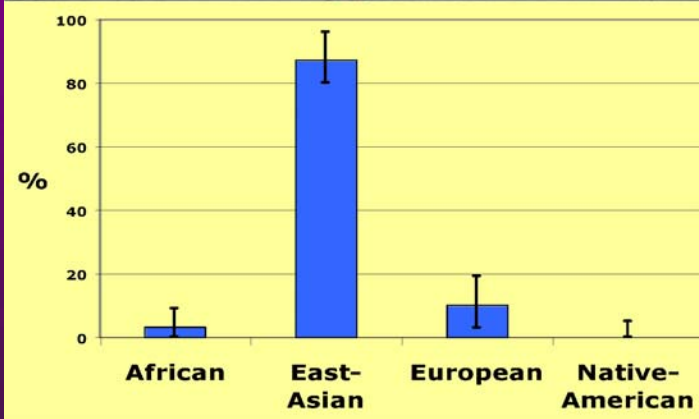
SDPD8



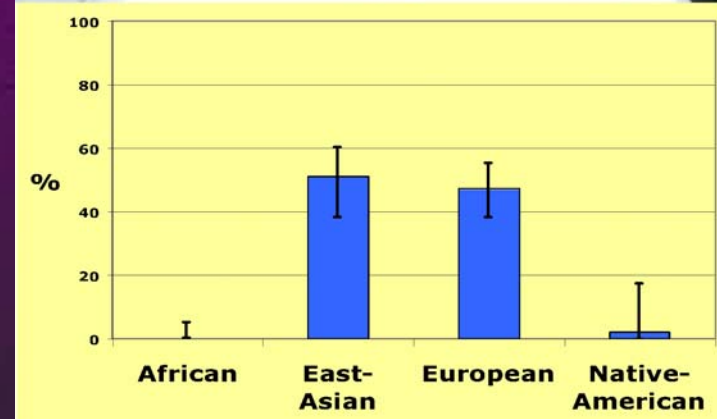
DNA Witness

Validation – Blind Studies

SDPD9

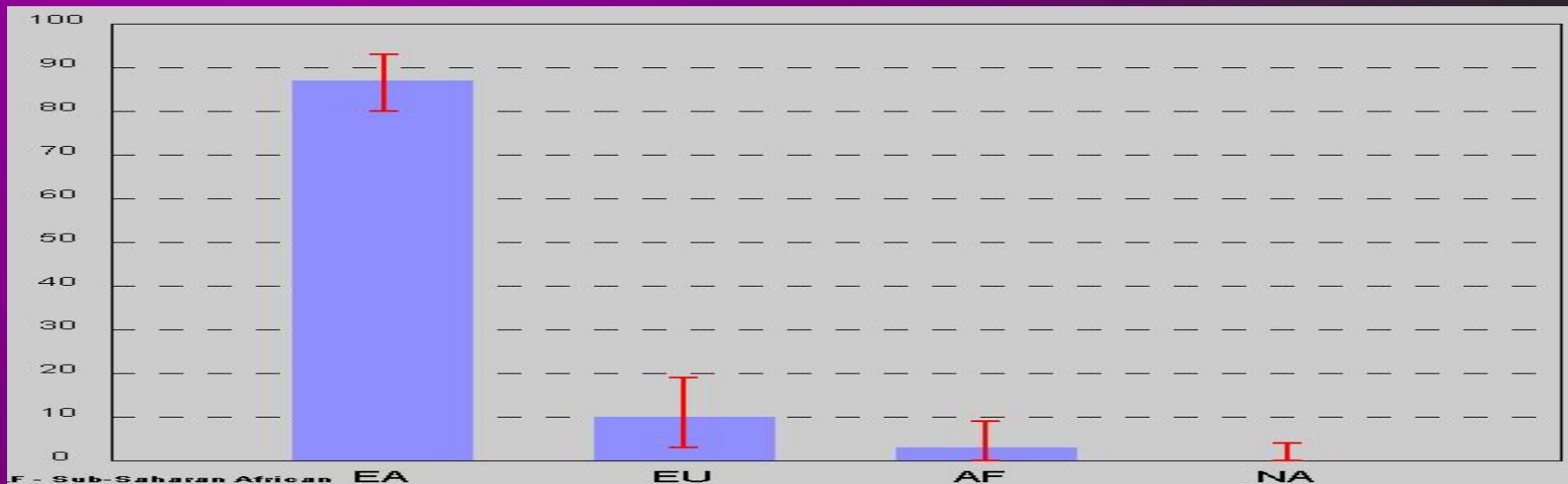


SDPD2

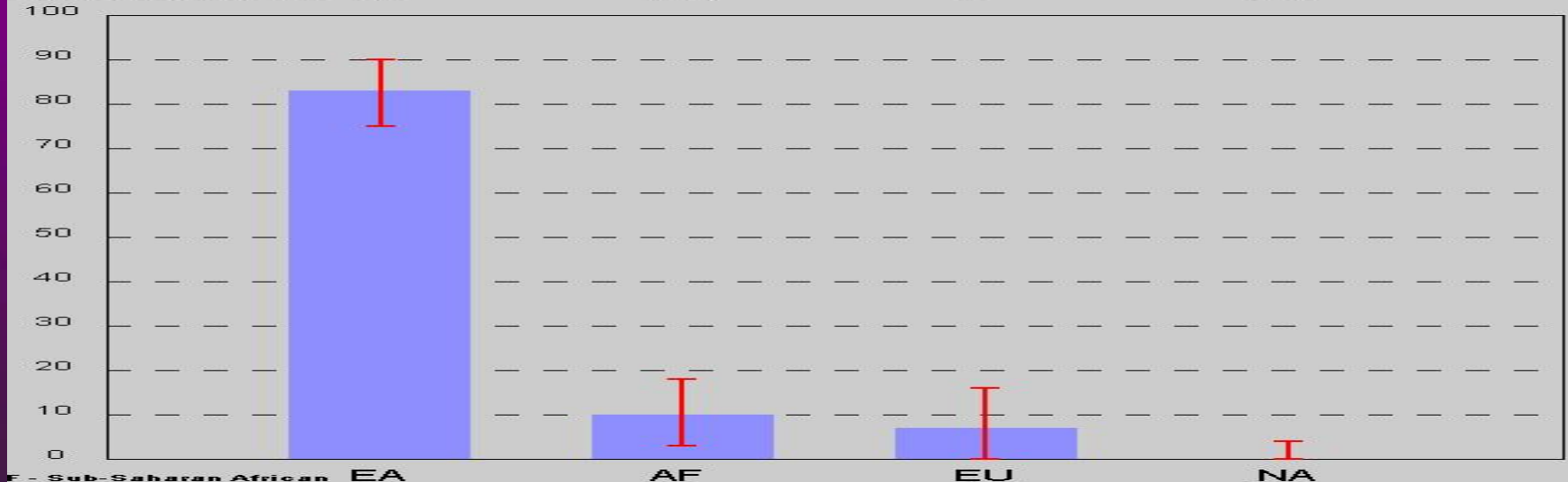


DNA Witness

Validation – Failure Studies



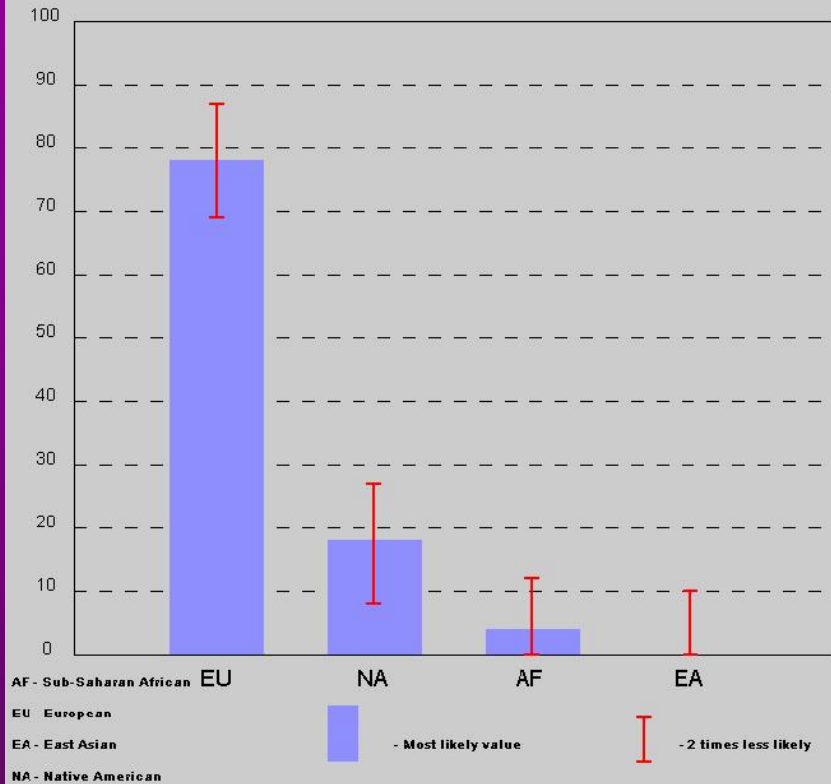
F - Sub-Saharan African EA



F - Sub-Saharan African EA

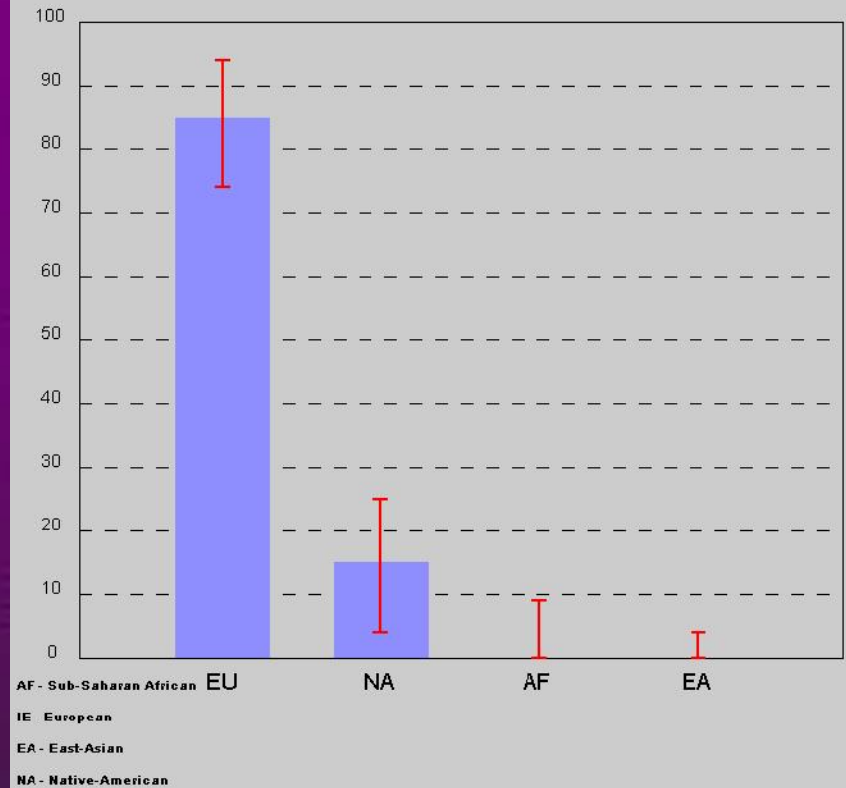
Stamp Case

Sample ID = UPF04379

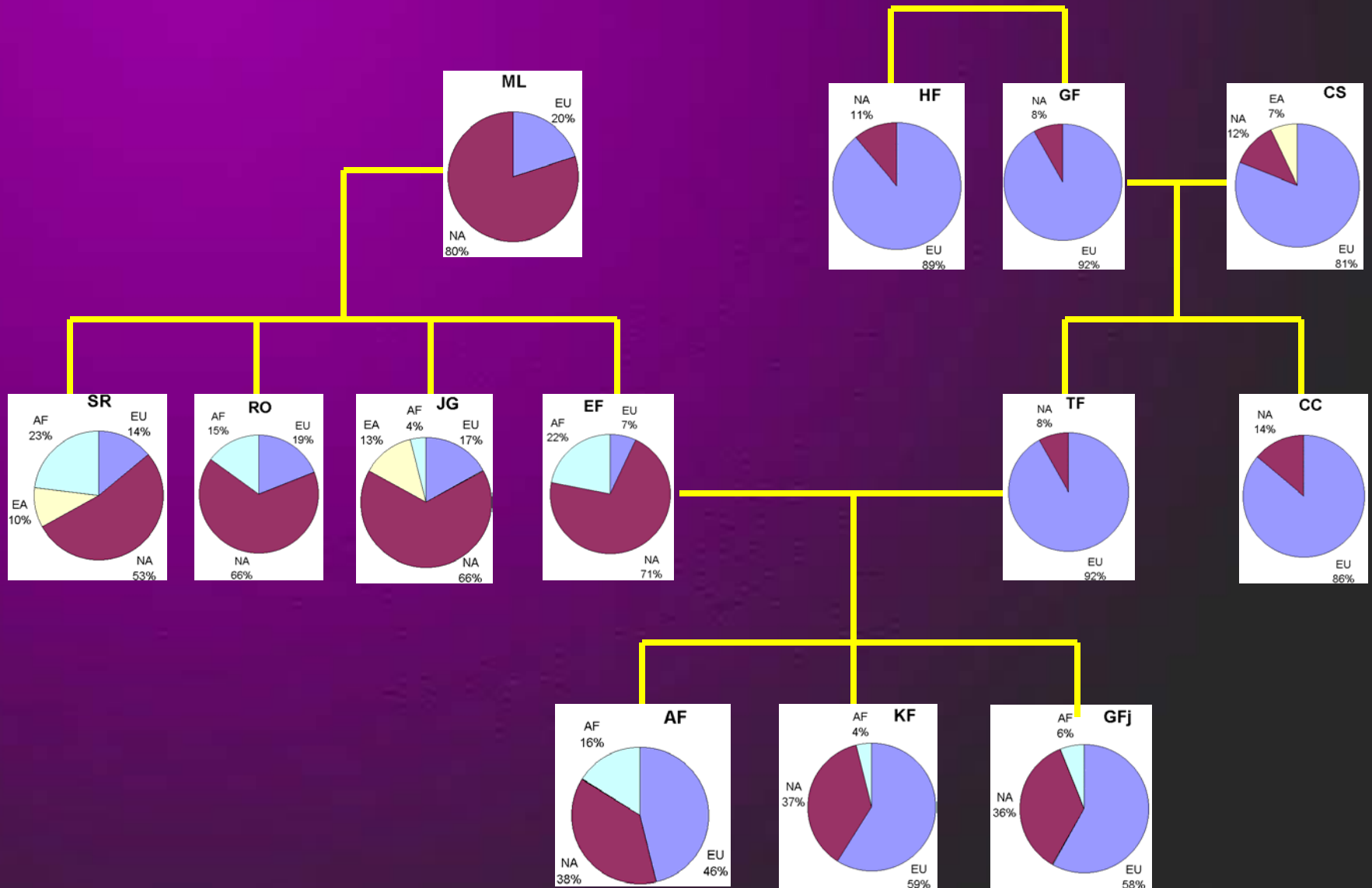


Sample ID = STAMP-1991

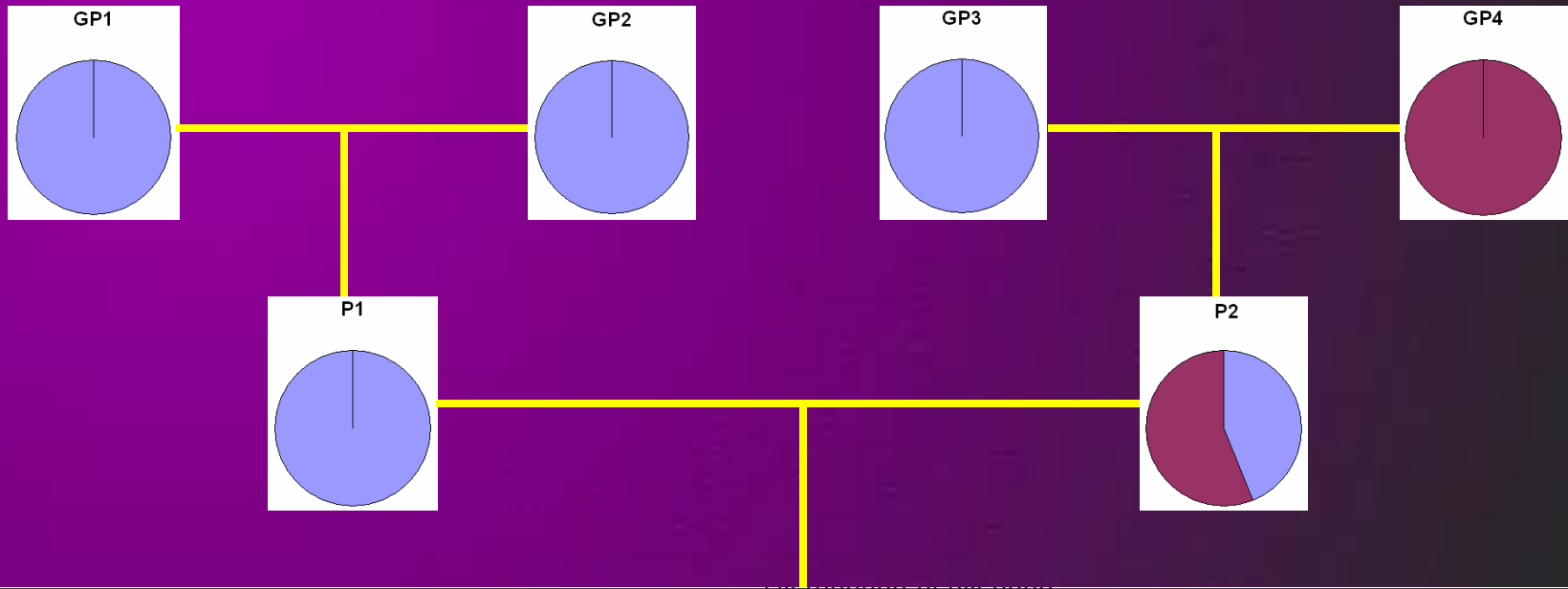
Sample Name = STAMP-1991



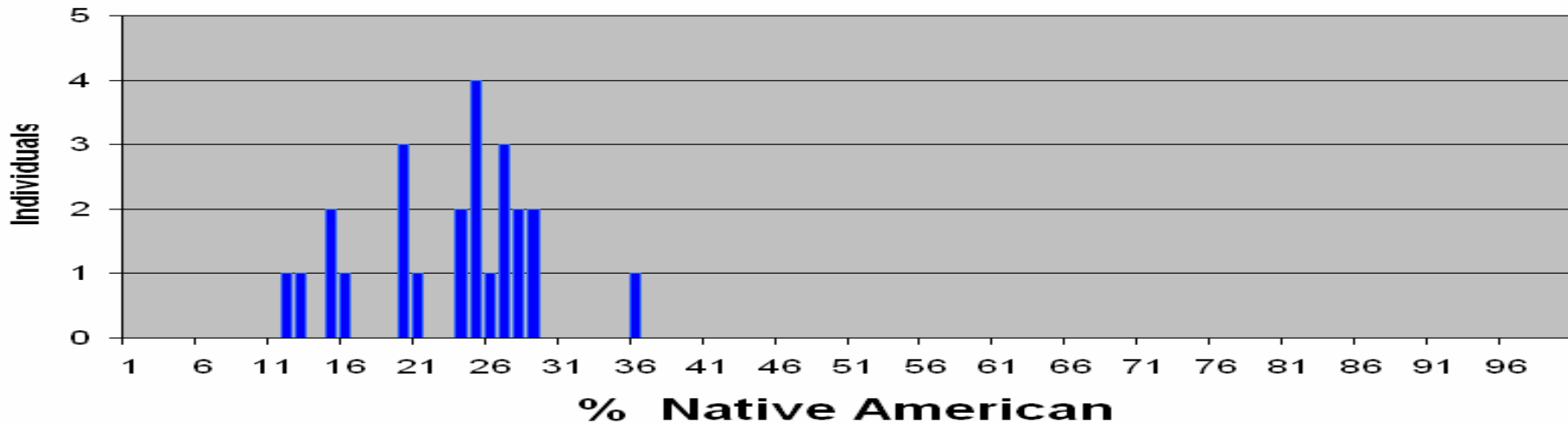
Validation – Pedigree Studies



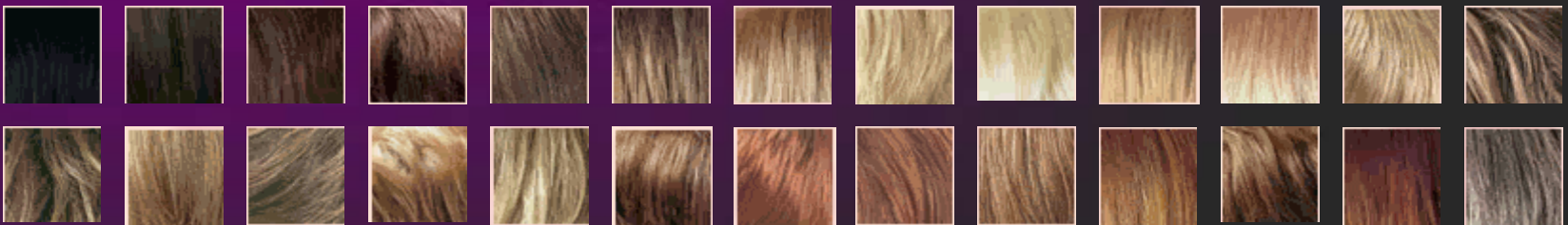
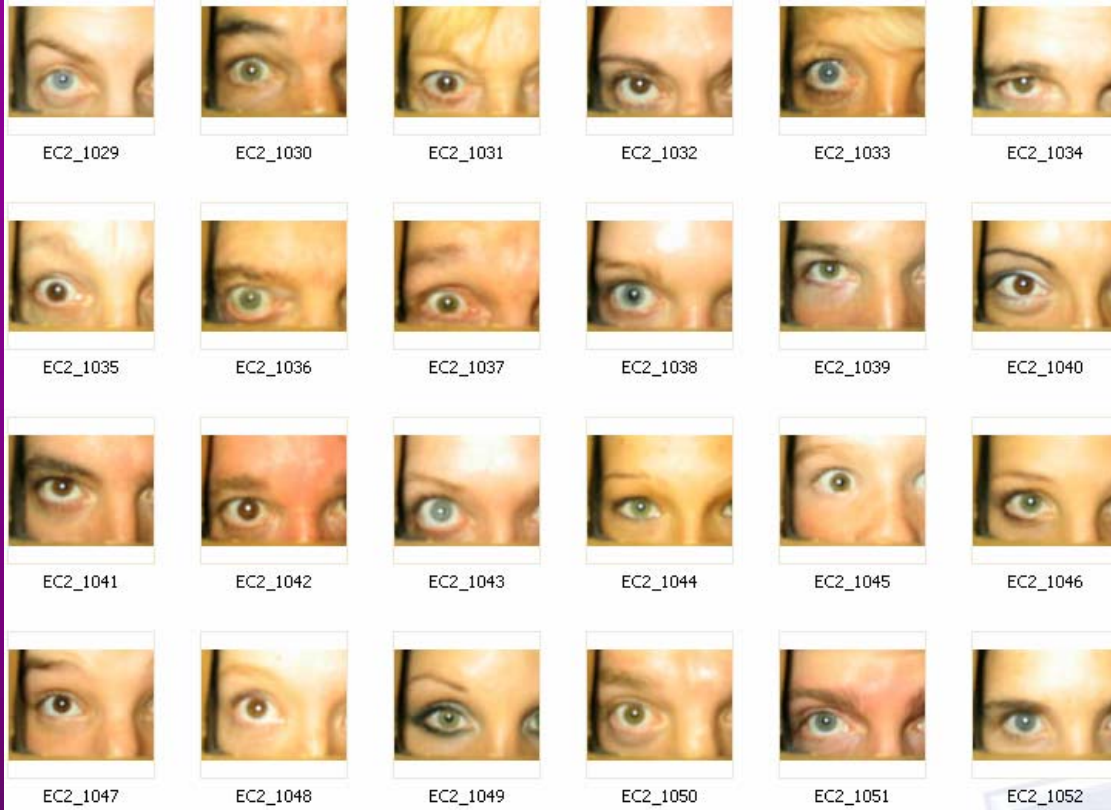
Validation – Simulations



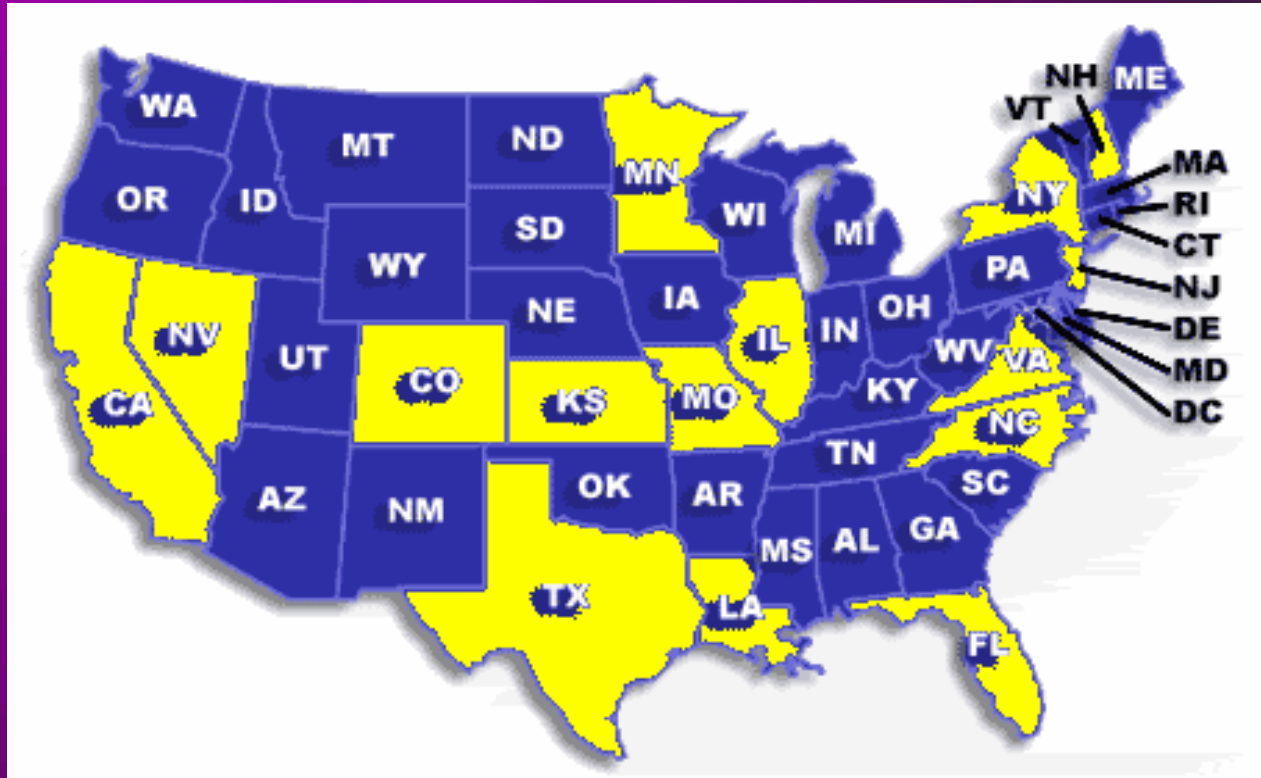
Native American Distribution (n=25)



Expanding DNA Witness?



Utilizing DNA Witness



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