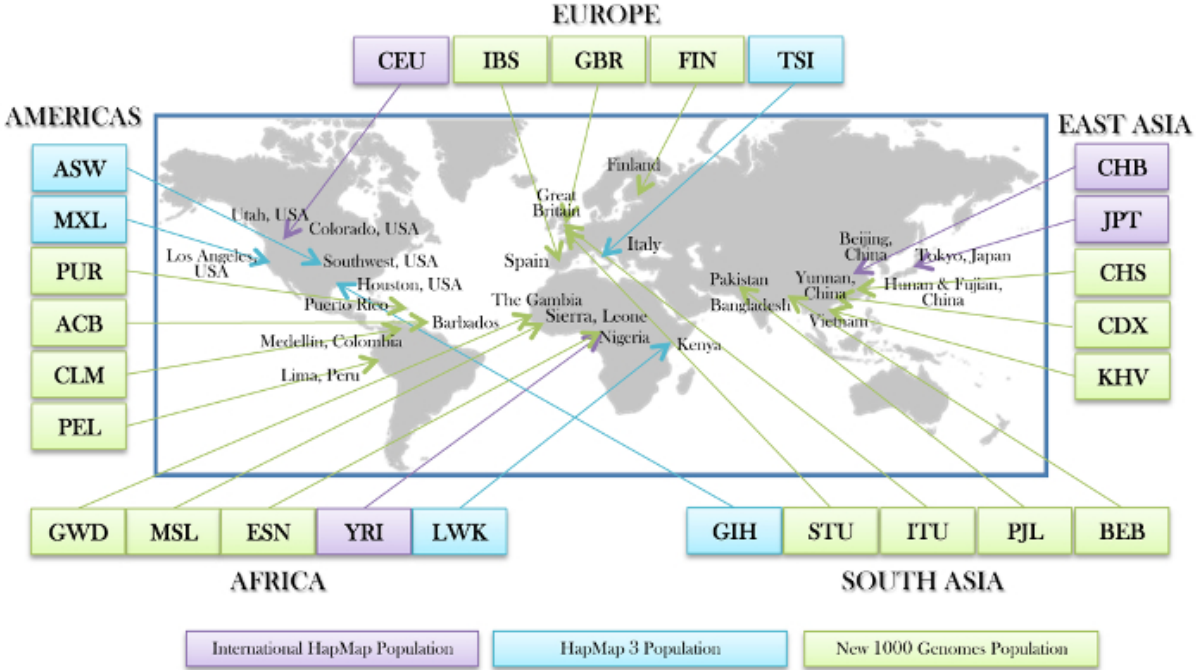


POPULATION GENOMICS GENOMES AND SOCIETY

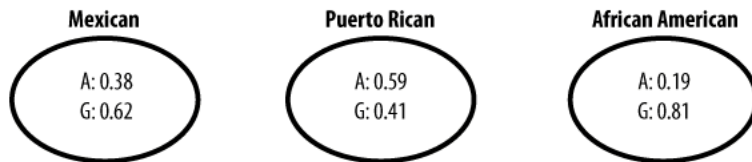
30Nov15

ANNOUNCEMENTS

POPULATION GENOMICS



F_{ST} IN THREE POPULATIONS



H = 0.47

H = 0.48

H = 0.31

Average subpopulation heterozygosity: H_S

$$\frac{0.47 + 0.48 + 0.31}{3} = 0.42$$

Average allele frequencies:

A: $\frac{0.38 + 0.59 + 0.19}{3} = 0.39$

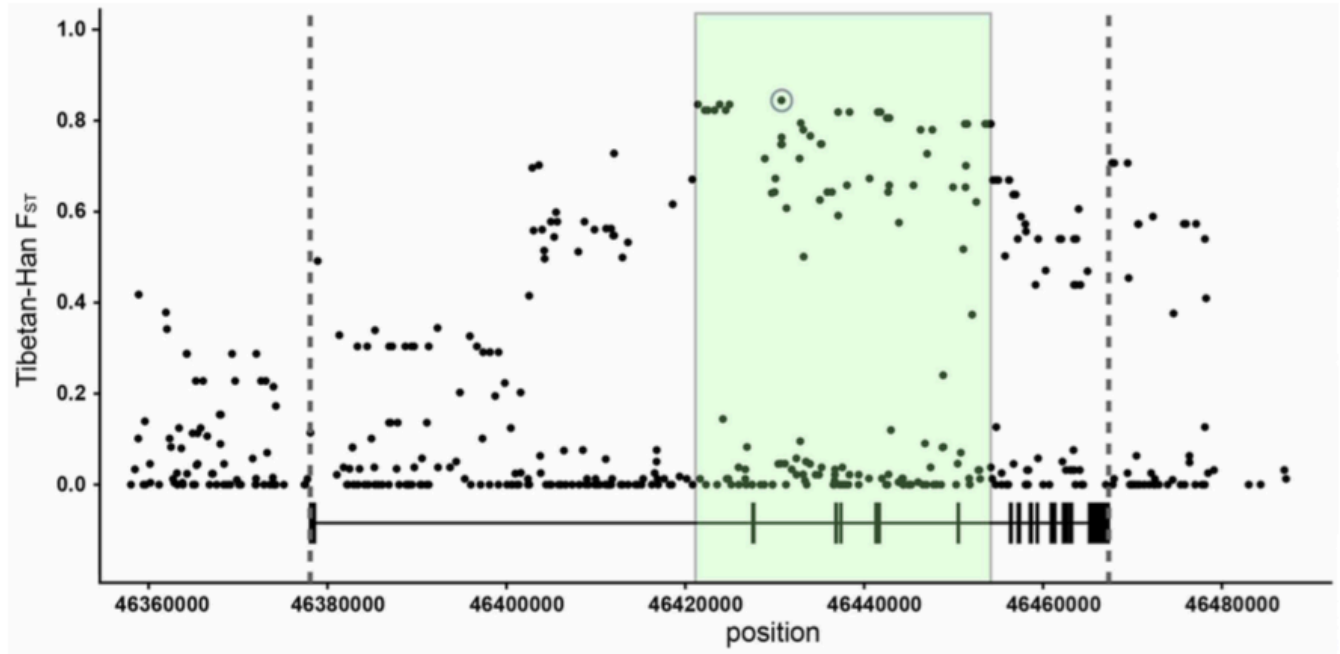
G: $\frac{0.62 + 0.51 + 0.81}{3} = 0.61$

Total heterozygosity: $H_T = 2(0.39)(0.61) = 0.48$

$$F_{ST} = \frac{H_T - H_S}{H_T} = \frac{0.48 - 0.42}{0.48} = 0.13$$

F_{ST}

Sequencing of 50 Human Exomes Reveals Adaptation to High Altitude



F_{ST}

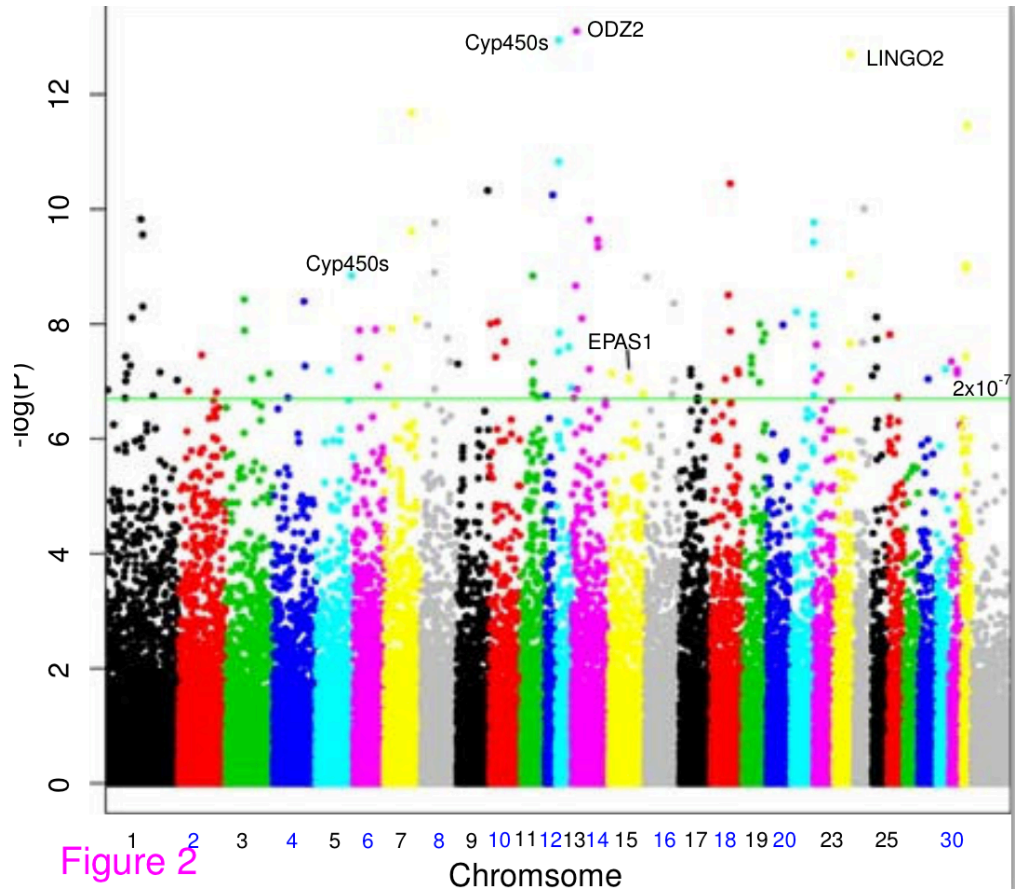
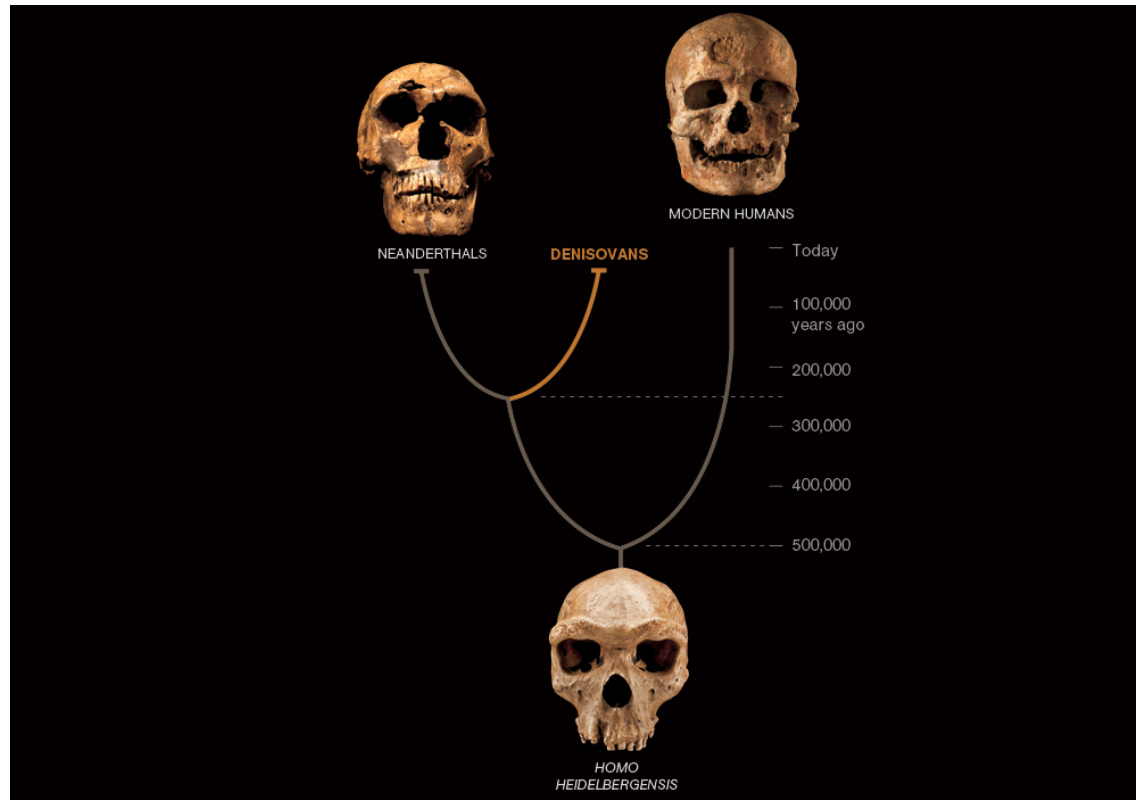


Figure 2

Altitude adaptation in Tibetans caused by introgression of Denisovan-like DNA



GENOMES AND SOCIETY

Q. Before she died, my aunt told me that my brother and I had different fathers. I didn't want to believe it and carried the secret for a year. When I couldn't stand it anymore I ordered a genetic test kit and in a ruse got my brother to participate (without his knowledge).

The results came back supporting my aunt's claim: My brother and I are only half siblings. I don't know what to do

GENOMES AND SOCIETY

1. Did sister have a right to genotype brother?
2. Should she tell him?
3. Would it be different if she found out he was carrier of CF or some other disease?
4. Should we all have our genomes sequenced?

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