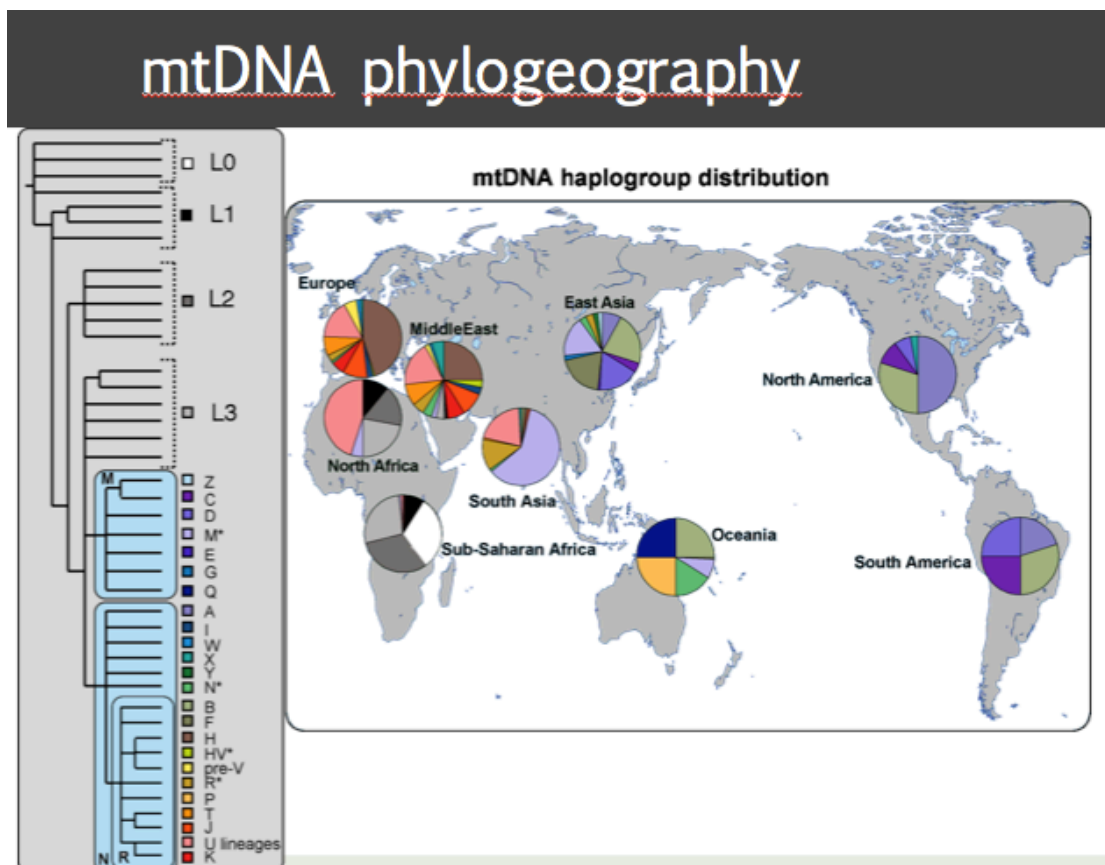


- Autosomal DNA is subjected to recombination
- Uniparental DNA (mtDNA, Y chromosome) traces back to mother and father's lineages



Haplogroups are lineages (phylogenetic branches) characterized by a common ancestor, typically diffused in particular regions/populations

## 'G L O S S A R Y'

**aDNA:** ancient DNA, from bones or other archaeological remains

**autosomes:** non-sex chromosomes (paired, one from each parent)

**genetic distance between populations ( $F_{st}$ ):** measure of population divergence; proportion of the total genetic variance that is due to differences between populations

**haplogroup:** related set of haplotypes defined by shared mutation. Only for mtDNA and Y chromosome.

**haplotype:** specific set of associated mutations at one locus

**MDS:** multidimensional scaling analysis (method to visualize genetic distances, usually between populations  $F_{st}$ , in two dimensions)

**microsatellite:** STR (Short Tandem Repeat), repeated structure of 2-6 bp length, high mutation rate

**mtDNA:** mitochondrial DNA (maternal inheritance!)

**mutation:** errors in DNA transcription. Change in one base (nucleotide).

**mutation rate:** rate at which various types of mutations occur over time

**nucleotide:** building blocks of DNA; come in four kinds: A (adenosine), G (guanine), C (cytosine), T (thymine)

**PCA:** principal components analysis (method of depicting genetic relationships, usually between single individuals, and visualize them usually in two dimensions)

**recombination:** the exchange of parts of homologous chromosomes during meiosis

**SNP** [snip]: single nucleotide polymorphism, a mutation by which a single base pair is exchanged for another, low mutation rate

**Y-chromosome:** paternal inheritance!

NJ: Neighbour Joining Tree, character-based

UPGMA: (Unweighted Pair Group Method with Arithmetic Mean) character-based tree

ML: Maximum Likelihood tree

MP: Maximum Parsimony tree