

Dictionary of Genetics Glossary

Meanings of terms you may come across in your research in the genetics world .

Administrator: Also known as a Project Administrator, Group Project a volunteer who establishes a DNA study with one or multiple commercial DNA testing companies.

Ancestral state: Refers to the state of a SNP that has mutated and is shared by the most people. Example: A negative result on a SNP means it is ancestral, a positive result means it is derived.

Anthrogenealogy: A term coined by Family Tree DNA combining the words *anthro* and *genealogy* in reference to utilizing DNA to trace one's heritage far beyond recorded documentation.

Autosomal DNA: The DNA of non-sex-determining chromosomes that mix or recombine. Also known as admixture DNA.

Base pair: A pair of nucleotide bases on complementary DNA or RNA strands organized in a double helix.

Build: The term used for the human genome reference standard (Build 38 is the most recent reference genome).

Cambridge Reference Sequence (CRS): The first mitochondrial DNA to be fully sequenced at Cambridge University in 1981.

Chromosome: A molecular "package" for carrying DNA in cells, organized as two double-helical DNA molecules that encode many genes. Some simple organisms have only one chromosome made of circular DNA, while most eukaryotes have multiple chromosomes made of linear DNA.

Chromosome browser. A tool on Gedmatch very useful allow you to do n 5cm level of match to another account number there.

Chromosome mapping. To place a person genetic in a pattern to determine which part of the family tree they are from

Coalescence age: The merging of genetic lineages backwards in time to the most recent common ancestor (MRCA).

CODIS: Acronym for Combined DNA Index System - the FBI's autosomal STR DNA database for profiles of criminal offenders

Crossover: See: Recombination.

DNA signature See haplotype.

DNA replication: The process by which the DNA double helix makes a copy of itself or of a fragment of itself. It uses the old DNA as a template for the synthesis of new DNA strands. In humans, replication occurs in the cell nucleus.

DNA sequencing: The process of determining the exact order of the nucleotide bases in a segment of DNA

Double helix. The twisted shape DNA forms when its two strands bond together. A double helix looks like a twisting or rotating ladder.

DTC: Direct to Consumer DNA test kits.

Endogamy: The practice of marrying within the same ethnic, cultural, social, religious or tribal group.

Exact match: Two individuals with exactly the same results for all markers or regions compared.

Fixation index (F_{ST}): A measure of genetic distances between populations. The closer to zero the less the distance.