

## 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.