

Technical Approach of Genetic Mapping

Peristeera Paschou*

Department of Biological Sciences, Purdue University, Indiana, United States

DESCRIPTION

Genetic Mapping is a process of finding gene sites on chromosomes. The relative sites of genes can be determined by observing genetic factors. The DNA approaches have been lately used by researchers to identify the physical sites of genes on chromosomes. Genetic mapping is also known as linkage mapping. Genome mapping is a technique for identifying and recording the locations of genes on a chromosome and distances between them. The Human Genome Project got off to a great start due to genome mapping. This approaches and methods defines a gene's locus and the distances between genes. It can provide hard proof that a disease, that passes from parents to children which is related to one or more genes. Mapping is a technique used in autosomal DNA testing to identify which sections of DNA came from which parent. It is important to test a number of close relatives in order to map DNA fragments on such chromosomes. The basic of genetic map is a chromosome map that reveals the relative positions of genes and other significant features. It is based on the concept of linkage, which says that the closer two genes are on the chromosome are likely they will be passed together. To produce a gene mapping, the researchers take body samples from members of families with a common disease or feature to create a genetic map. The DNA markers don't identify the gene that leads to cancer or feature on their own, but they can help researchers find out where the gene lies on the chromosome.

They are two methods of Genetic mapping and physical mapping. The genetic information get shuffled across

chromosomes or between various areas within the same chromosome. Genetic maps have been widely used to identify the genetic basis for single-gene related diseases like cystic fibrosis and Genetic syndromes. It can also help scientists to study genes that are thought to play a role in the development of more common diseases like asthma, heart disease, diabetes, cancer, and psychiatric disorders. Physical mapping is a cell biology process to determine the order and physical distance between DNA base pairs using DNA markers. It constructs larger DNA segments using DNA fragments and markers. Researchers can identify the positions of the adjoining regions of the samples were used to create DNA bases. It has the benefits of being easy to evaluate the relative position of genes based simply on their phenotypic effect. It is a method of recognizing which chromosome contains which gene and it identifies the exact position of that gene on that chromosome. It creates a Grouping, ordering, and spacing genetic markers in research crosses. Understanding genetic processes like combination, genomic structure, and genome mutation requires the use of genetic maps. It is built on the concept that genes segregate during menstruation due to chromosome fusion, allowing for study in the children. To advances in DNA sequencing have led to identification of over 20,000 genes. The human genome project, which analysed the complete genome, was completed in 2003. It is becoming highly significant in the search for disease-causing genes.

Correspondence to: Peristeera Paschou, Department of Biological Sciences, Purdue University, Indiana, United States, E-mail: peristeera@gmail.com

Received: September 6, 2021; **Accepted:** September 20, 2021; **Published:** September 27, 2021

Citation: Paschou P (2021) Technical Approach of Genetic Mapping. J Genet Syndr Gene Ther. 12:347

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