

Human genome project summary



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Question one: the human genome project.

The human genome project is an international scientific research project to sequence and map all of the genes of human beings. completed over thirteen years by the U. S. department of energy and the national institutes of health, however many different countries such as Japan, the U. K.

, France and Germany also participated. The human genome project is so important to society because of the impact it has on human health. Many new technologies have been developed as a result of the human genome project. One of these significant developments is Gene testing. These genetic tests can be used to diagnose disease, provide info about the course of a disease, confirm a diagnosis and can predict the risk of future disease within healthy individuals with varying degrees of accuracy. Other benefits of the human genome project are the ability to alter the genome of cells, clone organisms and to replace diseased cells with healthy ones.

Scientists are hoping that within the next decade they can begin to correlate DNA variants with individual responses to treatments, identify particular subgroups of patients, and develop drugs customized for those populations. The discipline that blends pharmacology with genomic capabilities is called pharmacogenomics. ([http://www.ornl.](http://www.ornl.gov/sci/techresource/HumanGenome/publicat/primer2001/6.shtml)

[gov/sci/techresource/HumanGenome/publicat/primer2001/6.shtml](http://www.ornl.gov/sci/techresource/HumanGenome/publicat/primer2001/6.shtml)) The human genome project has already helped countless people and will continue to do so in the future. However there are limitations to the project. It is now believed that only 3% of the DNA in humans code for proteins. The remaining 97% of the DNA is made up of junk DNA whose function may

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include providing chromosomal structural integrity and determining when, where and how many proteins are created.

Unfortunately the use of about 50% of the junk DNA is not known. This is just one of the examples of the limitations of the human genome project. Some limitations of the HGP are ethical, legal and social dilemmas such as, fairness in the use of genetic information, confidentiality and privacy issues, standards of quality control, commercialisation, education, the psychological impact and the philosophical impact of it. Before the human genome project began linkage maps were used in place of it.

But these linkage maps could not achieve the same amount of goals and aims as the human genome project does. Linkage maps are made up of genes that have been mapped and isolated according to DNA from humans. But only inheritable diseases contribute to the linkage maps. However many genes do not code for inherited diseases .

The maps only provided information on hereditary diseases. <http://www.genome.gov/10001772> http://www.ornl.gov/sci/techresources/Human_Genome/publicat/primer2001/6.shtml

http://www.hsc.csu.edu.au/biology/options/genetics/3060/genetics_974.html

www.google.com
http://en.wikipedia.org/wiki/Genetic_linkage#Linkage_mapping

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