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**GENE MODIFIED ORGANISM: PRO AND CONTRA. MEDICAL, MORAL AND SOCIAL PROBLEMS OF GENE ENGINEERING , CLONING**

What is Genetic Engineering? The principle of genetic technology relies on isolating a gene from one organism (donor) and putting it into another (the recipient) of a different species,this principle can be applied to plants, animals, mammals etc

The purposes of doing genetic engineering are many and various.

Pros of Genetic Engineering.

An advantage of cloning is that the offspring is totally predictable; it is guaranteed to have the characteristics that of the parents. Scientists believe that they may be able to treat heart attack patients by cloning their healthy heart cells and injecting them into the areas of the heart that have been damaged.

Another advantage, which is only a theory, is that skin cells could be grown for burn victims so that they could replace burnt skin. They believe they could grow brain cells for the brain damaged and grow spinal cells for the paralysed. Obviously if this were to happen then this would be a huge advantage.

Cons of Genetic Engineering:

In terms of gene therapy this can be a dangerous procedure. A virus is being used as a vector to get the genes inside, and some fear that even though the virulence factors have been silenced, danger is still at hand. There's also a risk that a gene could land in a spot other than where you want it and cause harm by being expressed in unusual ways. There have been several deaths in gene therapy trials, most famously that of Jesse Gelsinger in 1999.

What is Cloning?

Clones are organisms that are exact genetic copies. Every single bit of their DNA is identical.Clones can happen naturally—identical twins are just one of many examples. Or they can be made in the lab. Below, find out how natural identical twins are similar to and different from clones made through modern cloning technologies.

Pros and cons of human cloning.There are many medical benefits and disadvantages of cloning and its technology. They include the following potential health benefits: - the possibility of cloning technology to learn to renew activity damaged tissues and grow new cells to replace them; - people's ability to create genetically identical to donor organs such as: kidney, bone marrow transplant; - the benefit of studying cell differentiation at the same time as the study and development of cloning; - sterile couples will be able to have children who will have the genetic information of the mother or the father's. Potential risks or disadvantages: cloning creates identical genes. It is a process of replication of genetic constitution, so preventing gene diversity. Reducing the diversity of genes, weaken the ability to adapt. Cloning is also detrimental to the beauty that comes from diversity.