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Biotechnology: A Bane for Healthcare

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ABSTRACT

Biotechnology has been round for an extended time. Our descendants are creating usage of biotechnology for several things like the baking of bread exploiting yeast. Biotechnology itself as a word suggests, is the "fusion of biology and technology" exploiting biological procedures for product research and development. Although useful, there are been considerations that Biotechnology is being stretched to the surroundings. It is not new that the atmosphere is being degraded. Therefore the query currently is: If Biotechnology is a friend or foe to Environment? Biotechnology possess positive impacts to the atmosphere ought to outweigh the negative impacts to be thought about a Friend to the environment. Contrariwise, if Biotechnology leads to additional damage than advantages to the environment it might be thought about a Foe. Whereas there are not any doubts that Biotechnology has some positives, nonetheless it is undoubtedly a foe to the environment and human health care.

1. Introduction

The whole idea is not regarding the selection between exploiting and not exploiting technology however the challenge is to use it right (Gupta et al., 2006). It is best-known that technology has two faces however generally can't be represented in words. It has become doubtless obvious that technology has excluded our humanity. Humanity is exploiting all the right technology for all the wrong reasons (Kass et al., 1997). The human spirit should prevail above technology. Like one machine can do the work of fifty ordinary men but no machine can do the work of an extraordinary man (Grint et al., 2013). Technology today very frightens me as it is intended by engineers to impress other engineers and that they perpetually come with an instruction booklet once more written by the engineers for other engineers (Oleson et al., 2008).

This is often the entire purpose of technology. It produces an appetite for immortality on one hand and threatens the universal extinction on the other hand (Annas et al., 1989). Undoubtedly any sufficiently advanced technology is corresponding to magic however it costs the humanity an amendment in the ethics.

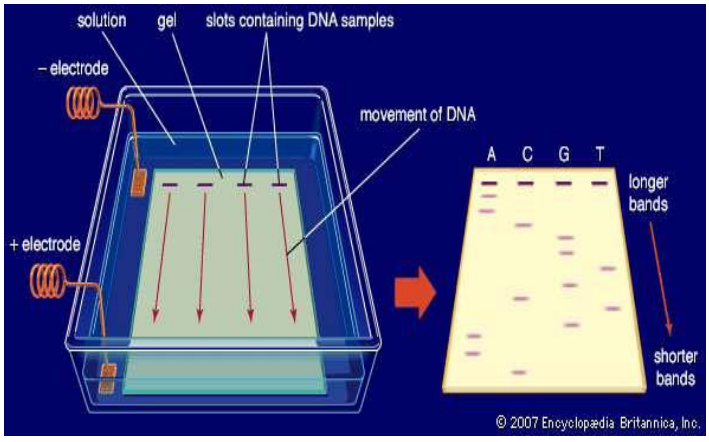

Figure1. *An illustration of gel electrophoresis for DNA, showing the gel and electrophoretic apparatus (left) and the separated bands of dyed DNA in the gel at the end of the experiment (right) Encyclopædia Britannica, Inc.*

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The real danger these day's life is not that computers will began to assume like man however that man will began to assume like computers (Levy et al., 1984). The definition of Biotechnology ought to be understood: - Controlled use of biological agents for useful purpose, if the product is harmful for human, atmosphere or animals, it is not thought of as a biotech product. Biotechnology is not dangerous, it is very overenthusiastic subject. If one is extremely keen to figure out in research field (Comstocket al., 2000). However, it comes with serious risk that ought to be expected in manipulating the body immunogenic profile. For starters, individuals have died or been seriously unwell as a result of clinical trials in cellular therapies. This is often not uncommon throughout history however you cannot discount the vast complexity of what biotechnology is progressing to understand; significantly as researchers are currently finding out in vivo gene sequence editing. The advantages and risks are outstanding however precisely, what you would expect from a worthy venture where the potential outcome is complete demolition of genetic hereditary disease like cancer.

Biotechnology is a bane to healthcare due to the following reasons:

1. Alterations with in the genes might cause in new diseases or disorders. This reason might cause to unwanted mutations at speed higher than traditional mutations in humans.
2. Changes or manipulations in genes might cause totally different species affecting ecosystem and organic phenomenon like food chain balance.
3. Manufacturing of food materials exploiting food biotechnology might cause health related disorders.
4. GMO's as we all know is the biggest drawback individuals face to choose whether or not to consume.
5. These GMO's being used in food trade or waste water treatment may have bad impact.
6. Similarly, ever-changing the character of plants exploiting Recombinant DNA Technology would cause better growth of plants in adverse conditions however in latter stage it would have an effect on the fertility of the land and cross pollination like for instance polyploidy problems and others.

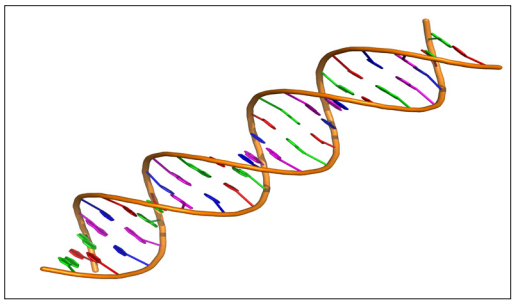

Figure 2. *Double Helix DNA [Google]*

Biotechnology has been basic for assessment and manipulation of life structures and method at the molecular level. Regulation of expression of explicit genes has impact on understanding of cancer development and immuno-pathological diseases and even superior impact has been on the fabrication of latest therapeutic molecules. These outcomes of biotechnology will have inferences not just for advancements for human well-being however additionally will generate debate related to its usage.

Now, if ethics are being thought-about, biotechnology is at the juncture of science and consciences. Scientific developments are formed by an ethical visualization that successively is formed by accessible technology. Abundant in biotechnology can be renowned for how it provides advantages to humanity however technology can have a gloomier facet because it can turn out into unexpected consequences that can cause damage or desensitize individuals. The ethical inferences of planned developments should be scrutinized rigorously. The ethical assessment of latest technologies as well as biotechnology obliges a special approach to ethics.

Modifications are indispensable because as a result of novel technology can have an additional deep impression on the world: -

1. Because of its restrictions with a right based approach to ethics,
2. Because of the significance and problem of predicting concerns and,
3. Because biotechnology now manipulates human themselves.

The ethical queries upraised in biotechnology are of a really completely diverse nature assumed the potential to extremely change the future progression of humanity such queries requiring thoughtful concerns. Instead of specializing in human rights and freedoms wisdom is required to articulate our accountabilities towards nature and others together with forthcoming generations. The facility and potential of biotechnology demands cautions to confirm ethical progress [9].

Time and assets should be dedicated for investigating the ethical inferences of planned biotechnological developments. The probable impact on all aspects of nature should be carefully considered. The emotional, social and non-secular inferences of development should even be inspected when humans themselves are the object of biotechnology.

Though the researches provide smart impact on humans and additionally the environment however the side effects with the nature have also been disclosed. Criticizers have engendered totally different opinions whereas posing the technology, which may appropriately be divided into two kinds that

are intrinsic arguments and extrinsic arguments. Intrinsic arguments against biotechnology maintain that biotechnology is "disagreeable in itself" whereas extrinsic argument focuses on "apparently harmful concerns of constructing GMO's". During this sense animal biotechnology is ethically challenging because it is unusual to genetically engineer foods, plants and animals. This argument drives like this biotechnology is the method of "restructuring an animal" that is the "playing with God". Animal biotechnology may also disrupt down the species boundaries.

Figure 3. *Genetically Modified Bell Pepper [Google]*

Figure 4. *Bt-Cotton [Google]*

Further there are negative impacts due to gene-splicing because it practices viral vectors to hold the efficient gene into the human body. The implications of those viral genes on the human body seem not to be known. The efficient genes may substitute the other genes besides the transformed genes. It may additionally cause totally different types of diseases to humans.

2. Conclusion

Therefore, Recombinant DNA Technology is taken into account as disadvantageous to humans besides loss of biodiversity that is one of the risks caused by Recombinant DNA Technology. For ex: - the farmers invariably choose the foremost superiorly creative and resistant type of crops. Thus lessing the variety of plants that are being cultivated. Transformed crops alter the utilization of powerful pesticides, herbicides and fungicides that are the vital issue that we must always be anxious about.

For an instance, some genetic alterations have been created on cotton varieties creating them resistant however these herbicides can kill every single plant which ultimately gives an impact to the ecological views. Similarly, the utilization of hereditary material from viruses within the fabrication of transgenic crops, their hereditary material might associate with gene from infecting viruses and also the subsequent virus that can be more transmissible. For an instance, cauliflower mosaic virus has the potential to reactivate the quiescent viruses. It can also produce novel viruses in very species to which the virus is transformed which might result in abdomen and colon carcinoma to human beings. Another negative aspect of biotechnology is the cost of producing GM plants and animals as these are skyrocketing the duration of return is also not predictable.

Now this can be concluded that by developing the technology without wisdom or prudence, a servant may prove to be an executioner. Technology is that queer issue that brings great gift with one hand and it stabs with in the back with the other. So technology is a useful servant but a dangerous master. No technology by itself is either good or bad as it depends entirely on how it is used.

Conflict of Interest: The authors declared no conflict of interest

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