

Ethical Issues in Genetic Engineering

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Introduction

Genetic engineering (genetic engineering) is a set of techniques, methods and technologies to produce recombinant RNA and DNA, isolation of genes of an organism (cells), manipulation of genes and introducing them to other organisms. The application of science of manipulation of genes is known as biotechnology. The purpose of these techniques are one - to make changes in the hereditary, the genetic apparatus of cells. Their result is obtaining numerous microbial mutants of hundreds and thousands of scientists who try to select the most suitable for a particular purpose. The paper highlights ethical concerns with respect to the manipulation of genes.

Discussion

Ethical issues with regards to genetic engineering are inevitably getting into a never ending debate. Bioethics is a subject that has emerged primarily due to medical advances that have defined the success of areas such as genetic engineering, organ transplantation, biotechnology, etc (Deneen, 2001). But these successes, in turn, have exacerbated the old and brought new moral problems faced by the physician in dialogue with the patient, their relatives and the entire society

While keeping in mind the scientific and economic prospects of genetic engineering, it is also necessary to bear in mind its potential threat to human rights and, in particular, the dangers that may arise in the future penetration of the human mind to the natural forces of nature. The ethics of medical practice is based on six ethical principles (to preserve life, alleviate suffering, not to hurt, being truthful to the patient, respecting patients' autonomy and treat them with justice) (Deneen, 2001).

The concept of ethics is influenced by time, culture, religion and society and is therefore subject to some variability. The purpose of genetic analysis, i.e. genome research, is a fact clearly positive. Prenatal tests used to determine whether an embryo carries a genetic defect or in families where parents are likely to convey to your child any genetic defect. The study may prevent future therapeutic interventions and in this case it is ethically permissible, because they are looking for a therapeutic purpose in the analysis. In most cases genetic analysis is done to decide whether to abort or not. In these cases, prenatal genetic diagnosis is perverted and is therefore ethically unacceptable. Genetic engineering in the case of humans is viable intervention in the genetic heritage of a being with the addition of new genes and thus alteration of its characteristics (Rollin, 1990). Transgenesis involves breaking the natural barrier between species and it should be considered unlawful because ethically is a serious transgression against nature

Genetic engineering with respect to human cloning leaves a negative impact on the sense of individuality of people, which is often differentiating them from the rest of the world. In addition to this, human cloning will have different psychological effects on individuals and will create a negative impact on the society as a whole. Currently, people consider cloning as something which has number of dangers associated with it. One more reason for people not accepting cloning is that they consider it something that is against religion and the will of God (Rollin, 1990). Seeing a science fiction idea becoming a science fact is unbearable for people as it makes them nervous and concerned about the future.

Conclusion

From the above discussion, it can be implied that Genetic engineering is not a science but a compendium of techniques to isolate and modify genes. We must avoid the abuse of

nature and protect it against the effects of irrational and unjustified manipulation by man. As an ethical principle, we must say that these changes should be aimed at the service of man or nature directly or indirectly, and consequently the researcher cannot act with intent to injure with the manipulation of the genome, or the animal itself or the humans.

Yet, the science of genetic engineering is also useful in a way that it results in significant advances and could save human lives. But there should be limitations set within the field to avoid interference with the nature.

References

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