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Medical Technology and the Contemporary Biological Revolution, Where To?

Abstract

The aim of this research is to approach the biological sciences, which are considered the dominant model in the contemporary period, due to their connection to technological developments related to scientific research. Where the guiding paradigm was formed, in the words of Thomas Cohen, this is due to the technological revolution and its connection with medicine, which is related to our lives in many aspects. Whether therapeutic or ethical, we find that biotechnology has been harnessed to serve humanity and reduce the difficulties that stand in the way of life. However, it is necessary to stand on the controversy that exists about overcoming the obstacles to technical development and its repercussions on the ethical level. Through this research paper, we seek to understand the applications of Biotechnology and its ethical implications according to human value frameworks.

The study concluded that it is useful to apply medical ethics as it is a set of rules that must be adhered to in order to achieve success in biotechnology and not to infringe on the sanctity of life in order to achieve the ethical mission of the medical profession, which is medical treatment.

Keywords: *biotechnology, ethics, human, cloning, euthanasia*

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Tibbi texnologiya və müasir bioloji inqilab, haraya?

Xülasə

Bu tədqiqatın məqsədi müasir dövrdə dominant model sayılan biologiya elmlərinə elmi tədqiqatlarla bağlı texnoloji inkişaflarla bağlılığına görə yanaşmaqdır. Rəhbər paradiqmanın formalaşdığı yerdə, Tomas Koenin təbirincə desək, bu, texnoloji inqilab və onun müalicəvi və ya etik olsun, bir çox aspektlərdə həyatımıza aid olan tibblə əlaqəsi ilə bağlıdır. Buna görə də biz görürük ki, biotexnologiya bəşəriyyətə xidmət etmək və həyat yolundakı çətinlikləri azaltmaq üçün istifadə edilmişdir. Bununla belə, texniki inkişafa maneələrin aradan qaldırılması və onun etik

səviyyədə təsirləri ilə bağlı mövcud mübahisələrə dayanmaq lazımdır. Bu tədqiqat işi vasitəsilə biz biotexnologiyanın tətbiqlərini və onun insan dəyərinə uyğun etik təsirlərini anlamağa çalışırıq.

Tədqiqat nəticəsində belə qənaətə gəlindi ki, tibb etikasını tətbiq etmək faydalıdır, çünki o, biotexnologiyada uğur əldə etmək və tibb peşəsinin etik missiyasına nail olmaq üçün həyatın müqəddəsliyini pozmamaq üçün riayət edilməli olan qaydalar toplusudur, bu, tibbi müalicədir.

Açar sözlər: *biotexnologiya, etika, insan, klonlaşdırma, evtanaziya*

Introduction

After the emergence of most of the medical and biological problems that sparked many debates about the human conscience, which was provoked by the tyranny of many issues such as cloning, euthanasia, and organ transplantation, but with contemporary technology, the human body has become like other things that can be tested and experimented on. This is what Claude Bernard emphasized, He said: "In order to know the internal environment of the living organism, we must descend into it, if this expression is correct, and implement it through experimentation, which means that to analyze the phenomena of life, we must adopt the methods of anatomy in the human body" (Bernard, 2005, p. 106).

The last decades have witnessed remarkable progress in the field of biology, especially with regard to genetics and the detection of genome codes, which helped to emerge many theories that helped find solutions to many health problems after the disease was devastating the patient's health and inevitably led to death, but with the advent of genetic engineering Which made achievements, to say the least, they facilitated the life of humanity and made it possible for generations free of deformities, deadly diseases, etc., At the present stage, geneticists have become able to intervene in determining the genetic characteristics and characteristics of living organisms, meaning introducing new genes and replacing others. This is but not limited to (Al-Muheb, 2000, p. 8).This indicates the extent of scientific and technical progress, especially the needs related to humans. Biotechnology has harnessed various sciences and their applications to serve humans. It is clear that biotechnology has a close connection with many aspects of life, as it includes many and diverse organisms, and therefore its fields are diverse, whether it is related to the plant or animal aspect. But adapting biotechnology to serve humanity is what interests us in this research (Saleh, 2006, p. 6).

Research

What we would like to raise during this research are the problems related to biotechnology related to humans in contrast to contemporary technology that governs the characteristics of the human body according to the law of need and demand, in order to shed light on what exists and is achievable for the human body. However, this takes us away from the prevailing traditional proposal regarding the concept of the body that Many ancient philosophers made it a grave for the soul, from Plato to Descartes.

Study Problem

It is not a coincidence that biotechnology occupies great importance, because of its impact on human life in multiple fields, including medicine, especially after the acceleration of technical development and the revolution achieved in providing treatment for many incurable diseases and also finding solutions to problems that have troubled humanity. This preventive and existential decisiveness. It also strengthened confidence in biotechnology and the services it has produced for the benefit and happiness of humans. But with the epistemic revolution linked to human experimentation, it had ethical repercussions, which made it a scientific turning point. So we wonder to what extent the legitimacy of these modern technologies can be benefited from? What is the validity of its applications in humans? When is an abortion medically required? What are its causes and reasons?

Significance of the Study

This study derives its importance from its topic, which deals with research and analysis of biological biology and scientific development, as the latter has contributed to surrounding humanity with a map that shows. It has the extent of its readiness or susceptibility to contracting certain diseases. This is what is considered the positive side of biotechnology, not to mention that science

is making tremendous progress as it is characterized by innovation, so it is important, the therapist must adhere in light of what exists.

Objectives

This research paper aims to attempt to answer a cognitive problem that still resonates, In epistemic and value-based philosophical thought, and as a result of the scientific achievements achieved by medicine, ethical and fateful problems and questions have emerged related to rethinking man and the purpose of his existence, especially in light of the worsening of many biological and medical consequences.

- Enhancing human capabilities to keep pace with technical development
- Establishing a new ethics, meaning the ethical framing of biotechnological standards
- The necessity of establishing a global law that frames biological standards to preserve human dignity.

Methodology

By addressing the problem with regard to the subject of the study, we rely on critical analysis, through which we will work on analysis, interpretation, and criticism of scientists in a coordinated manner, and then we arrive at drawing conclusions, especially since the practice of medicine is ethics before it is a profession, by making the right decisions towards the patient.

Biotechnology Approach Concepts and Applications

No one denies the development taking place in the level of technology, especially in the field of medicine. Its purpose is to protect humans from the seriousness of prevailing diseases, improve life for the better, and enrich this scientific field. However, the latter has made humans a subject of experimentation, which has made ethics take on a role in existence in light of these technologies. Biotopia, in which the human body has become subject to modification by determining genetic characteristics, is no exaggeration to say, we live in the midst of a massive scientific and technological revolution. After the person was passionate Through scientific research, he has control over it today, changing and replacing the organs of his fellow man With all ease, as genetic engineering revealed the secrets of genetic material and discovered identification enzymes and deciphered inheritance codes, humans now have the ability to adapt and structure the genetic stock in living organisms to satisfy their desires.

Meaning that genetic engineering is based on the idea of controlling the human genetic system, which allows the human race to be programmed in the easiest way This is what we will explain through the elements that we will discuss below according to prior designs, but what raises controversy is where will these vital and technical applications take us in the absence of moral and religious motive?

Genetic Engineering (or genome revolution)

Genetic engineering is one of the branches of biotechnology that is concerned with recombination and formation of genetic material by addition or deletion for the purpose of improving the genetic characteristics of the organism. Therefore, we find in recent times tremendous progress in this field, where genetically modified animals have appeared, whether this modification is at the level of a single species or at the level of a single species. Multiple species. It is no longer difficult for biologists because genetic engineering has created new and strange species based on biochemical sciences (Al-Baqsami, 1993, p. 15). This genomic manipulation necessitated the presence of medical controls or what is called bioethics. This concept became thorny in the late seventies as a result of the developments taking place. In the field of medicine and biology, where Jacqueline knows her It is the standard science of human behavior that can be accepted in the field of life and death, Bioethicist Arthur Cailan also defines it as the study of ethical issues in the fields of treatment and research medicine (Rose, 2001, p. 11).

This tremendous development has had many impacts, one of which is that it has improved human life He is progressing and developing by finding solutions to many problems related to his life. On the one hand, and on the other hand, the transgressions created by technology have made the philosophical question present at the heart of science and the integration of knowledge. This constituted a very important occasion for the renewal of philosophical thought, which reminds us of

Althusser, who approved the basis of the flowering of epistemology is that science has truly produced philosophy, What is worth noting in the midst of all this are the scientific practices applied at the medical level and their collision with the values rooted in the social milieu, as the results of genetic engineering are clearly visible through the transformations that affect the nature of human existence as a whole, transforming man from that sacred being into a subject for experimentation like any subject other.

The scientist is not an ordinary human being. Rather, he is controlled by the scientific idea on which he works. Therefore, he does not feel compassion for animals and their voices do not move him in the least. Rather, all his interests are focused on his idea only, as he sees in front of him only those problems that he strives to solve, and the same applies to the doctor and the biological researcher. He is stripped of his humanity in order for his experiment to succeed. What produced two types of morals: morals linked to trust and the other to fear. The first was linked to the results of science and its positive effects, and the second was in contrast to the first. Therefore, a person must protect himself from the excesses of technology. Which may lead to the collapse of the universe, and in this regard, Erich Fromm states in his book "Man between Essence and appearance: "Scientific progress has made us as if we are aware of everything, as if we are similar to the gods" (Rose, 2001, p. 16).

All of these successive developments on the biological level touched, in one way or another, on the moral side of man, which raised many questions that were addressed by biotechnology, as it began to impose itself and undertake the task of researching and examining this vital development, as it can be said that biotechnology is the result of the achievement of various biological and medical researches and the results they have resulted in. Applied practices to living organisms.

Biotechnology and Medical Treatment

The process of gene therapy is one of the most important stages of genetic engineering, through which we can get rid of genetic diseases and the main cause of the disease. However, this requires studying the genes related to the patient to try to find a solution to his disease. Through gene therapy, the patient finds many solutions to the diseases that were leading to his life, and thus it was transmitted. Genetic engineering programs in the few years from workability to implementation, (Rose, 2001, p. 16).

Which made researchers compete with each other to impose their applications and overcome the problems that humanity suffers from, as Paul Berg says that all human diseases are hereditary...and I challenge you to present to me an argument that any human disease is not genetic, as it is one of the most important diseases that genetic engineering has focused on in its studies. We find cancer, this deadly disease that is considered one of the most dangerous diseases to human health, as it ranks second in the world After traffic accidents, as a result of the outbreak of this disease, scientists' research multiplied in order to find quick and effective solutions. In 1992, a magazine published an unprecedented strategy in the field of gene therapy related to cancer. The experiment was conducted on rats that were injected with what are called cancerous cell formations in their brains, and five days after the cells producing the viral carrier were injected into the brain. Tumors The rats received treatment with ganciclovir, and then rapid regression and disappearance of the tumors was observed (Frock, 1989, p. 15).

Through genetic control, scientists believe that they can control cancer cells and the ability to control the virus and destroy its cells. This indicates that biotechnology has given humans great hope in life, and this is what is expressed in the preventive strategy, in addition to in addition, this practical technology produced "human insulin" from bacteria (Dubro, 2017, p. 294). It is not an exaggeration to shed light on this type of research, as it has been exposed to problems previously raised philosophically, such as free will, as it was re-addressed following the discoveries of genetics, which highlighted the myth that genes are puppets and we are their puppets18. This is what required tremendous efforts at all levels in order to create the human genome project and uncover the essence of life, which makes genetics raise creative aspirations for science and its achievements, and at the same time carries many fears due to the manipulation that occurs at the level of genes, meaning that genetic engineering is fraught with There are as many risks as they are

fraught with benefits, so research must be carried out, but with extreme caution and precisio (Dubro, 2017, pp. 399-400).

Among the applications of contemporary technology to obtain a birth, we find many techniques used, including artificial insemination, mother by proxy (or foster mother), and in vitro fertilization, and here we limit our discussion to artificial reproduction.

The desire to have a child is something that is innate to a person in order to preserve his name, but even if he has the ability to live without children, he lives in constant anxiety and turmoil, and to avoid this, his needs must be satisfied, and this is a natural thing for human beings. No one does not want to not be. He has children because the demand for motherhood and fatherhood is innate in man, but in the event that he realizes that the reason for his infertility is related to an organic disease, he strives to overcome it in order to conceive a child, even if it is by using contemporary technology and its various advanced techniques to solve the problem of infertility, as artificial insemination overcomes the disability that the couple suffers from, as it is Fertilization of the wife's egg with external sperm from a normal man (Baidouh, 2009, p. 76). With high-quality accuracy, the causes of infertility are many and varied, including:

- Uterine atrophy, its congenital absence, or some infections of the uterine wall
- The appearance of tumors that change the direction of the uterus and deform it, which hinders the process of fertilization. This is for women, but for men there are also many diseases, including diseases related to the reproductive system and hardening or inability of the seminiferous tubules.
- Infertility resulting from drug abuse and various other social ills (Radley, 2001, p. 75).

As for the birth of the first in-vitro baby, it was in 1968 AD for a couple, Brown and Mrs. Leslie. After her failure to give birth to a child naturally, he resorted to reproductive technology. With all this, we find that the Arabs were the first to use such technologies. The first fertilization process was in the 14th century AD, performed on an animal. The owner of the horse has sex sperm from a purebred horse that has excellent characteristics that are not available in other male horses. The first experiment of this kind was conducted in the Western world in 1781 (Saeed Al-Haffar Muhammad, 1970, p. 19).

Thus, this technique became popular among doctors, and the couple became able to obtain a child who had become ill through internal or external fertilization - in a vessel that serves as an artificial womb. Scientists applied their experiments, some of which succeeded and some failed, but the applications continue despite all the doubts raised by the process. However, after the success of the operation, to whom will the child’s lineage be attributed?

There are many positions. The first group is that the child is attributed to the mother because she is the owner of the egg, even if it grew outside her womb and was fertilized by an unknown man. As for the ruling of Islam in this matter, it is clear according to the Almighty’s saying: “Their mothers are except those who gave birth to them” (Sobhi, 1993, p. 151) .

Which means that the mother is the one who carries and gives birth, so the pain of removing the egg cannot be compared with the pain of childbirth and the suffering of pregnancy. As for the father, the lineage of the child goes back to the marital bed and nothing else. In this, Abdullah bin Zaidan Mahmoud says in his book The Persuasive Ruling on Invalidating Artificial Insemination and the So-Called Embryo Transplantation, in Al-Bukhari. Al-Muslim, on the authority of Aisha, said that the Prophet, may God bless him and grant him peace, said: “The child is for the bed and the prostitute is the stone” (Ahmed, 1992, p. 36) .

In the event that the father is the sperm donor, whether this man is the woman’s husband or a stranger to her, if the husband is in complete agreement with his wife about the operation, then the lineage of the child is transferred to him even if the wife’s husband is not his wife, and in the event that the opposite is the case, then He is not attributed to him, as lineages cannot be bought or bought, which means that artificial insemination methods are prohibited in Islamic law in general and in detail.

Conclusion

In conclusion, it can be said that the issue of biotechnology has been a focus of interest for society International, it cannot be said with certainty that cloning is a method that strikes at the roots of human identity. It is a process that seeks to rid humanity of the various problems that it suffers from. Cloning has helped transfer and transplant human organs wherever it is possible to clone the organ to be transplanted. It has also achieved other therapeutic benefits, taking into account legal and legal controls. The same applies to abortion. This is what we tried to clarify in our research by moving from the classical conception of the human body to the scientific conception, explaining the future prospects that biotechnology has led to, focusing on genetic engineering and human cloning technology and its effects and results.

However, it is necessary to benefit from scientific development in a way that serves humanity and brings it good and happiness, avoiding those dangers that make them weapons in the hands of governments. The same applies to genetic engineering, which is also considered a double-edged sword that can be used to destroy human existence by implanting lethal genes. It can also contribute to solving many problems, such as providing vaccines and antibiotics for diseases that affect humans, in addition to applying them to agricultural products that have contributed to their abundance and diversity. Despite all this, scientific experiments must be controlled with strict ethical controls and laws so that scientific research cannot be exploited in ways that cause harm to humans.

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