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## THERAPEUTIC CLONING FROM THE PERSPECTIVE OF PUBLIC LAW



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### ABSTRACT

Therapeutic cloning is one of the important branches of the new science of cloning, sub-trends stem cells and field of genetics. Today, medical and research results of "therapeutic cloning" is debatable from different dimensions legal, bioethical and medical, medical law, human rights and public rights. Public law that regulates government relations with citizens in various aspects, especially in the emerging legal phenomena, will be evaluated more than other fields in this context. In the legal system of the Islamic Republic of Iran, because according to the fourth article of the constitution, Islamic generally to law applies absolutely and all laws and regulations and all governing principles of the constitution, Therefore, must entered legal aspects, legal and ethical rules and regulations related to therapeutic cloning based on legal norms the extraction into the country's legal system.

### Introduction

Public Law is responsible for government relations with citizens in different dimensions according to the literature and their own laws and special topics as one of the main tendencies of legal knowledge. Since the relations of subject have specific dynamism, therefore Basic Law should provide legal solutions to all the new phenomena of social life. One of these new phenomena observed in the late nineties in the field of scientific research, particularly genetic research in front of the public law is "Stem Cells" and "Therapeutic Cloning". So far cloning raised in two areas of "Reproductive Cloning" for production of man or any other living creature "Therapeutic Cloning" for treatment of patients with incurable. Both issues raised questions in different areas, especially "Medical Ethics", "Medical Rights" and "Bioethics Public law" in the front of researchers, lawyers, jurists, legislators, governments and international community. Questions such as: What are the duties of these findings? Are states and governments should regulate these scientific findings on the legislative framework? What are the duties of scientific references, moral, normative, legal in this regard?

The subject of this paper is analyzing the "Therapeutic cloning" from the perspective of public law. That is allocated with the approach of the legal system of the Islamic Republic of Iran. This means that according to the fourth constitution of the Islamic Republic of Iran, Islamic law applies absolutely and generally to all principles of the constitution and all laws and regulations governing. Therefore, if the government obliged to regulate the rights of the phenomenon and wants it to be systematic through the legal mechanism, make sure your applicable laws and regulations must not be in consistent with Islamic criteria. To reach this goal, before anything, extract Islamic Shiite viewpoints of the jurists in this regard then, according to this view looking approaches and strategies. In this paper after concept

of stem cell, analyzed the legal aspects of genetic issues, cloning and therapeutic cloning, we presented approach and scholars viewpoint of scientists and assemblies of international law about this subject and after that issue reviews from the perspective of Islamic jurists and finally, as the approach of choice in terms of Shiite jurists is appointed at the end comparable the solution with following countries and international organizations studied.

In 1908 Russian scientist of Histology named Alexander A. Maximow (1874-1928), the first will be used word "Stem Cells" (1). Stem Cells, that is undifferentiated and non-expert cell and has Self-renewal and differentiation of the two features is capable of more differentiated cells (2). There are several ways to extract of stem cells; some of these methods are extracting these cells from embryos. Cloning refers to a process in which, through asexual reproduction, inventories arise which is similar to genetic material of another organism. Cloning can act independently to produce an egg cell to an organism. The first cloning created a sheep named Dolly. A Scottish Scientist Doctor Ian Wilmut and et al in 1997, established Dolly through nuclear transfer mammary gland cells of a sheep into egg without a nuclear, taken from another sheep (3). This method of cloning, called Intra-cytoplasmic transfer Somatic Cell Nuclear Transfer (SCNT). In this method, a differentiated tissue cells to be extracted which is supposed to be cloning. The nuclear of this cell transfer into an egg cell with microscopic methods that out sided its nuclear. This cell obtained from combination of cytoplasm and the nucleus of a cell undifferentiated cells differentiated into other creature. But in terms of genetic features are quite similar to differentiated cell (Unlike to sexual reproduction that one half of their genetic information received from each parent's) (3). Produced the cell from division and differentiation behavior is quite similar to the egg cell is a stem cell as well. These cells enter a surrogacy to be born produced after fetal development. Cloning mainly with two main goals are followed: 1) Reproductive Cloning: During the Reproductive Cloning, unclear of one of the somatic cells, are extracted and are transferred into an ovule without nucleus, created the embryos. Then the egg cell grows and embryo will be converted to an adult. That person will be quite similar in terms of genetic material taken unclear from her somatic cell (4). 2) Therapeutic Cloning: In this method, taken the nucleus of a somatic cell, from the ill person and transferred into ovule without nucleus. Egg cell created after an electric shock. Egg cell in this way as a normal egg cell has ability of division and the formation of the Morula and Blastocyst. Blastocysts obtained of this method can be used to extract stem cells. This method is known as Therapeutic Cloning (3). Genetic material in the nucleus of stem cells created in this way exactly like somatic cell nuclear ill person will be taken from them. Although it may be abuses of both reproductive and therapeutic cloning to occur, but this phenomenon is two-dimensional, like other human phenomena both exploited and could be used as a tool to promote human society. Some critics of human defended of Human Reproductive Cloning and for this process will have to justify the reasons for which the most important are: 1) Infertility treatment 2) Giving birth to healthy children free of genetic disease 3)

Restructuring a loved one who is missing 4) Recreating people are very capable. (5). However, due to the increasing adverse effects of human cloning compared with the benefits of it, this type of cloning is banned in all international flora (WHA51.10, 1998, 16 May). But in the following therapeutic cloning can be used as a part of human life: 1) extracting stem cells from embryos created through therapeutic cloning: The prospects for effective use of these cells for therapeutic strategies for the treatment of diseases that do not exist. 2) Extracting these cells to differentiate and grow them as a specific tissue that patients are deficient, create very effective prospects to treat these people (6). There is the possibility of organ and tissue donation transplant rejection in transplant patients still some time after the transplant. In case if the linked tissues created through differentiation of stem cells derived from therapeutic cloning, there is not also the possibility of rejection.

In general, human cloning prohibited in most countries due to its adverse effects on the family and society (7). In 2005 the United Nations General Assembly adopted a resolution as "United Nations Declaration about therapeutic cloning". According to resolution cloning is forbidden (United Nations Declaration on Human Cloning, A/RES/59/280, 23 March 2005). Clause "A" aforementioned resolution want of states to take all necessary measures for the effective protection of human life in the application of knowledge about life and clause "B" calls want of states that prohibited all forms of human cloning, as they are incompatible with human dignity and the protection of human rights. Some countries (such as China and UK governments) began to oppose this resolution. The main reason for their opposition was to the resolution of the distinction between reproductive cloning and therapeutic cloning. The main reasons for prohibition of human cloning include: 1) Violation of human dignity: Becoming human reproductive process as a human-like industrial design, genealogy and family deprived of normal social ties, has been accessed in contradiction with human dignity. 2) The loss of family relationships and normal human lineage: Specify the relative relationships of cloning are something ambiguous and confusing. Are cases of cloning, you should constitute the initial nucleus of the individual child or brother or sister? If the owner of the cell nucleus is from just a woman, who is the baby's father? The woman who donated the egg and the embryo in the womb of a woman who conceived and gave birth to the baby, what role will have? These are among the questions that can easily show undermining the family institution in the children generated of cloning. 3) Infringe on individual identity and freedom of cloning: Based on the pattern of life style, Future cases of child cloning will be greatly vague and naked. What age will be affected by many diseases? What matters will be talent and talentless? How they will be involved with anxiety and fear? Such person would be deprived from freedom and choice. 4) Risks and uncertainties applicable: Cloned humans, just like what has been seen in animal cloning, they will be involved with a very high probability of experiencing a variety of diseases and disorders, including premature aging even before reaching the age of 20. Therefore, until cannot be solved as long as the objection of ensuring, human cloning will be prohibiting (5).

Among the most important reasons for the prohibition of therapeutic cloning are destroying human embryos, use of human embryos for individual treatment, violation of human dignity and etc. (8) There is no consensus on the ban on therapeutic cloning. Angle international instruments to the fetus, as well as the practice of international organizations and regional human rights and the dignity of the human right to health in the realm of international law, therapeutic cloning in terms of rights not only justified, but necessary. However, administration of therapeutic cloning does not mean that this type of cloning is free from any national and international monitoring. Proven experience and does not need to explain that, there is a possibility of abuse from all scientific achievements, but this should not lead to the closure of research and scientific investigation (9).

**Therapeutic Cloning**

After the growth of egg cell created through therapeutic cloning into Blastocyst, stem cells are extracted from the resulting Blastocyst. The purpose of identification and extraction of stem cells are appropriate treatment strategies for the disease. Treatments of many diseases by stem cells in research stage, and in specific cases, even are in the clinical stage (10). The use of stem cells derived from other people, for the treatment of patients can be associated with graft versus host reaction (11). Because due to genetic differences between individual major donors and patients, there is possible reaction of the host against the transplanted stem cells. One of the solutions to these problems are using of stem cells extracted through therapeutic cloning. In this case, the genetic material in the nucleus of stem cells, that is like the cells in the patients, so we will not be faced with graft versus host reaction. The effective prospects used of these cells for therapeutic strategies diseases that do not exist. While achieve this by extracting the cells from embryos or adult, is involved in numerous legal issues. There is widely differing views in various flora to extract stem cells through therapeutic cloning. Based on the presence of divergent views, the progress of different countries in relation to this treatment technique will vary relative to each other.

**Therapeutic cloning from the perspective of religions**

Some Catholic thinkers and embryos addition to being banned human reproductive cloning, it is known illegal the therapeutic cloning, because it requires destroying human embryos, and the use of means to treat someone else. From their perspective, therapeutic cloning is discriminatory and a violation of human dignity (12). Catholics in this context did not take into consideration the growth of an embryo and therefore cannot say that only one sperm to fertilize an egg even then, independent personalities and same human dignity that cannot be compared to that study. However, many moralists rejected the inherent immorality of therapeutic cloning (7). According to them, if therapeutic cloning done under ethics committee to monitor and uphold the principles of bioethics, not only immoral, but also by taking some measures for ethical action, humanitarian and marveling (7). Among the Jews until 40 days after fertilization embryos do not make any type of human personality and refer to it as unclean water (13). Since Islam is faced daily with the evolution of human life at all stages and developed programs to life and human perfection and considered the principles of human morality. Also due to the openness of knowledge that is the basis of human progress and always support and encourage the acquisition of knowledge for the human. In this regard, the timing of the formation of human personality and insufflation of spirit decisive in the extraction of stem cells from embryos (14). Assembly of the Islamic Al-Azhar is the highest Sunni religious authority prohibited human cloning and noted that must be prevented by all means (13). From this perspective, in Sunni jurisprudence based on the fatwa of Islam in Saudi Arabia fatwas Fatwa Council vote on stem cell activity, prohibited the extracting stem cells through therapeutic cloning for therapeutic and research purposes (16). But this time the Shiite scholars determine for example, in the third or fourth month of pregnancy. For example, comments by Ayatollah Mousavi Ardabili in relation to human cloning is: "Although cloning in humans has not been into practice, but there is no solid evidence of the sanctity of such tests." As well as Ayatollah Nouri Hamadani in the field said: "The realization of this action may be unclear, if possible, if not opposed to Islamic principles, that is fine" 14 If this measure is adopted, would not exist unethical something about the use of embryonic stem cells (15). Based on this, cloning including reproductive and treatment is not unlawful in itself, but use it as a normal way of Sharia and Islamic law is incompatible with taste forbidden because of corruption, legal, social, ethical and existential (Esteftaat, Ayatollah Mousavi City) (17). There is no problem transplant organ created through therapeutic cloning. There is no problem with even production and transplantation of animal organs and tissues into humans prohibited the vast majority of countries. (Medical Esteftaat - cloning Ayatollah Makarem Shirazi) (18).

Legal perspective of the international community and international on therapeutic cloning Legal meetings and conventions on a wide variety of cloning has been formed to reviews various aspects in the world to consider the positive and negative aspects, to provide solutions in this field. The first reaction to human cloning at international level established about sixteen years ago, in the United Nations Educational, Scientific and Cultural Organization (UNESCO) took place. This reaction and attempt finally formulated to the governments of member consensus position about human reproductive cloning, in terms of Article 11 of the UNESCO Universal Declaration on the Human Genome and Human Rights 1997. According to this announcement, "it is not allowed test inconsistent with human dignity, such as reproductive cloning of human beings." Following the adoption of the Declaration of UNESCO, the World Health Organization's unacceptable the human cloning morally. This organization put on its agenda the issue of human cloning, discussion on this topic finally in 1998 led to the adoption of a resolution on the organization. This resolution referred to the Declaration was adopted by UNESCO, "cloning for copying of individual human beings morally is unacceptable and contrary to human dignity and integrity. In addition, one of the most important conventions in this field is the Convention on International Helsinki. According to Article 9 of the International Helsinki, any research and study in the medical field should be based on law and ethics, it is permissible within the limits of power with human subject countries and Nationality in ethics and law not intended in the context of scientific research and medical purposes. Also, according to Article 10 of this law, this research handed to the medical community that specializes in this area. In any medical research with human subjects should be considered the risks and benefits and fulfilled with the least amount of risk for human society (13). So according to this international convention, research about cloning handed to the medical community that specializes. But because this branch of medical science depends on other sciences such as ethics and human rights, therefore should a full alignment between noted scientists and paid to support and nurture of science cloning or avoided attacks on humans or human rights. In addition to the above, in November 1996, members of the Council of Europe adopted a convention entitled "Convention on Human Rights and Biomedicine" and an additional protocol adopted in 1998 entitled "Prohibition of cloning human beings" in the Annex to this Convention. According to this protocol, it is prohibited any intervention to create a human being with another human being quite similar genetically (19). In this Convention, the term "human being" is not defined and the debatable issue would be our definition of "human being". For example, Holland also commented that, human beings phrase just mentioned human beings; this means that human beings have been born (19). Among European countries, only the UK, Belgium and Sweden allowed to create human embryos with therapeutic cloning method. Therapeutic cloning is prohibited in many European countries some of these countries include Denmark, France, Germany, Italy, Finland, Spain and Greece joined to this convention (20).

Comments constitution of the Islamic Republic of Iran in relation to therapeutic cloning According to the constitution of the Islamic Republic of Iran, Islamic law governing applies absolutely and generally to all principles of the constitution and all laws and regulations. As a result, any kind of research on human discuss should be close with legal and religious issues and in line with Islamic standards. According to certain rules scholars have different comments about cloning. For example, Ayatollah Marefat does not know prohibited the human cloning. But the second sentence considers unlawful because of the negative consequences. As well as Ayatollah Mousavi Bojnordi and Ayatollah Mousavi Tabrizi know permitted the human cloning. Ayatollah Seyed Mohammad Hosein Fazlollahi know permitted human cloning. It does not consider the creation from failure and knows a sign of the power of man discovering the rules and systems that have God in creation, of course he also does not allow the proliferation and spread of this issue and sanctity warrant issued in the case that such cloning to kill

the use of its members (Jurisprudence Research Center of the judiciary, treasures Estefaat). According to what was quoted, most Islamic scholars consider permissible the human cloning but the second sentence are not permissible because of corruption in the wake of counting (13).

### Conclusion

Cloning is one of the important branches of the medical science and that discussed from the perspective of the rights particularly the rights of the public. We cannot accept or reject that regardless of legal principles of a country. In this regard, and given the fact that according to Article (4) of the constitution of the Islamic Republic of Iran, Islamic law governing to all of applies absolutely and generally to all principles of the constitution and all laws and regulations, therefore decision in this regard must be made according to Islamic norms and the Constitution and as a result, any kind of research on human discuss should be close with legal and religious issues and in line with Islamic standards. Also, since one of missions of public law is against the misuse from scientific achievements and therapeutic cloning has great ability to abuse and diversion from its original path, therefore rights of the public in the event of acceptance of such a phenomenon should block the abuse of it and by enacting laws and provisions of to deal with abusers from it.

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