World Health Organization

WHO

Topic B: Reproductive cloning of human beings: Status of the International Debate

ALEXMUN 2017

Dear Delegates,

It's our pleasure to welcome you to Alexander Bain's 2017 United Nations Model. Each member of this committee is part of the success of this event, and so, we gladly invite you to help us make this model a fun and learning experience.

My name is Ana Sofia Ferrari, your committee's president. I hope you enjoy being a part of Alexmun's World Health Organization committee. I'm currently attending my 3rd semester of high school at the Bachillerato Alexander Bain. Throughout middle school I was a member of Alexander Bain's debate club, which helped me develop different skills such as communication, investigation, and teamwork.

This year's chair will be formed by Margot Jirash as the Moderator, Ana Paola Amor Arredondo as the Conference Officer and Daniela Manzanarez as the Political Advisor. Every member of our staff encourages you to make this event a learning experience that will truly help you strengthen your abilities.

Our committee plays an important role as part of the United Nations given that the World Health Organization has a major responsibility over the improvement and development of global health in many aspects.

This year's World Health Organization topics will be:

- *Assisted Reproduction in developing countries.*
- *Reproductive cloning of human beings: status of international debate.*

A productive debate is awaiting, in which realistic plans, ideas and solutions will be created in order to have a reasonable negotiation that will lead us to the pursuit of peace. We expect nothing less than a remarkable performance, and so we hope you prepare yourself for the model accordingly.

This background guide is only the first step in preparation for this event, as we also expect you to read Alexmun's policies regarding plagiarism, dresscode, and evaluation in order to enjoy a successful event. We are looking forward to seeing you work with enthusiasm and wish you the best of luck!

if you have any questions or doubts please do not hesitate to contact us.

Sincerely,
The chair of the World Health Organization committee.

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2. **Committee's Brief**

When diplomats gathered in 1945 to establish the United Nations, one of the topics discussed was that of creating a global health organization. Three years later, in 1948, The World Health Organization was created. Prior to its establishment, 61 countries signed its constitution, and as of 2015 it consists of 194 member states, (all Member States from the United Nations with the exceptions of Cook Islands and Niue).

As its name suggests, the organization's role has been to serve as the authority of health within the United Nations and lead global health matters. Some of its first priorities were to prevent the spread of malaria, tuberculosis, sexually transmitted infections, improve maternal and child health, nutrition, and environmental hygiene. Years after the formation of these first goals, child deaths almost halved, going from an estimated of 90 deaths per 1000 live births, to 46 deaths per 1000 live births in 2013, as well as the number of women that died due to complications during pregnancy, which almost halved as well. The spread of HIV has reversed, going from 3.4 millions in 2001 to 2.1 millions in 2013. Likewise, the global target of increasing access to safe, drinking water was reached by 2010. These are just a few examples of many successful cases the World Health Organization has achieved.

However as new problematics arise, the Organization has had to adapt and change to keep up with them.

World Health Organization remains committed to the principles established in the preamble of its constitution, which states the following:

> *"Health is a state of* ***complete physical, mental and social well-being*** *and not merely the absence of disease or infirmity; The enjoyment of the highest attainable standard of health is* ***one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition****; The* ***health of all people is fundamental*** *to the attainment of peace and security* ***and is dependent on the fullest cooperation of individuals and States****; The achievement of any State in the promotion and protection of health* ***is of value to all****; Unequal development in different countries in the promotion of health and control of diseases, especially communicable disease,* ***is a common danger****; Healthy development of the child* ***is of basic importance****; the ability to live harmoniously in a changing total environment* ***is essential to such development;*** *The extension to all peoples of the benefits of medical, psychological and related knowledge* ***is essential to the fullest attainment of health****; Informed opinion and active co-operation on the part of the public are of the* ***utmost importance in the improvement of the health of the people****;* ***Governments have a responsibility for the health of their peoples*** *which can be* ***fulfilled only by the provision of adequate health and social measures****."*

3. Historical Background

"Cloning is the product of a new, genetically identical organism from a single parent. It occurs in nature, such as when a strawberry plant sends out runners and the offspring inherit all their genes asexually. However, artificial cloning is tricky as not all cells have the potentials to grow into complete individuals, and mature cells may be reluctant to do so." [1]

Even though cloning experiments have taken place since the late 1880s, the first successful cloning of a *mammal* using an adult somatic cell came until 1996 when british biologist Ian Wilmut inserted the nuclei of body cells into fertilized eggs that had had their genetic material removed, making them totipotent[2]. Using udder cells of sheep as the source of nuclei, Wilmut's team inserted the resultant embryos into sheep to develop normally. After 277 attempts, one embryo survived into adulthood, known today as Dolly the sheep, announced to the world 7 months after its birth, in February of 1997.

This scientific breakthrough however started an international debate on the subject. While some saw the opportunity to create stem cells and grow organs that could perhaps cure millions of diseases (among many other prospects, such as new infertility treatments or even the possibility to reverse age!) others believed that it was messing with nature, playing "God" and also argued that it could lead to a major overpopulation that could in turn lead to a food shortage, among many other arguments as well.

The same year that Dolly was announced to the world, the Fiftieth Health Assembly of the United Nations affirmed that "the use of cloning for the replication of human beings is ethically unacceptable and contrary to human integrity and morality", which was reaffirmed the following year as well. All countries opposed to human reproductive cloning.

During the fifty-ninth session of the General Assembly in 2004, the representatives of all Member States continued to agree on the prohibition of reproductive cloning, but remained divided on whether the treaty should've also banned cloning for medical and scientific purposes. The representative of Costa Rica introduced a draft resolution on behalf of more than 60 other countries which would outlaw all forms of human cloning, while the representative of Belgium proposed to ban human cloning for reproductive purposes but offer individual nations three options to control other purposes of human cloning: adopt a ban, impose a moratorium, or regulate them through national laws to prevent misuse. Neither proposal attracted much support, so the representative of Italy introduced a third alternative in the Sixth Committee on November 19th 2004 that proposed a declaration that *"would call upon Member States to adopt and implement*

legislation "to prohibit any attempts to create human life through cloning processes and any research intended to achieve that aim" and "to ensure that, in the application of life science, human dignity is respected in all circumstances and, in particular, that women are not exploited" as well as to *"adopt measures necessary to prohibit*

[1] *A New Law of Nature: Ian Wilmut (1944-)*. En: *The Science Book: Big Ideas Simply Explained*. Nueva York: DK Publishing, 2014. p. 325.

[2] Totipotent: *"capable of developing into a complete organism or differentiating into any of its cells or tissues"*. ("Totipotent." Merriam-Webster.com. Accessed September 18, 2017. https://www.merriam-webster.com/dictionary/totipotent.)

applications of genetic engineering techniques that may be contrary to human dignity"".

A working group met on the 14th, 15th and 18th of February 2005 to finalize the text of a declaration on human cloning based on the Italian draft resolution and the Sixth Committee met the afternoon of February 18th 2005 to take action on the report of the working group.

- Please check the following link to understand the history of the debate more thoroughly: http://apps.who.int/gb/ebwha/pdf_files/EB115/B115_ID2-en.pdf

4. Actions and Agreements

In 1997 the Health Assembly affirmed that "the use of cloning for the replication of human beings is ethically unacceptable and contrary to human integrity and morality". The following year, the 51st World Health Assembly reaffirmed that "cloning for the replication of human individuals is ethically unacceptable and contrary to human dignity and integrity". As a consequence, about 35 countries have banned human cloning.

International documents like the Universal Declaration on the Human Genome and Human Rights, adopted by the UNESCO General Conference in 1997 and endorsed by the United Nations General Assembly the following year, and the World Medical Association's Resolution on Cloning, supported in 1997, have confronted the issue.

The creation of an international convention against reproductive cloning of human beings has been under consideration in the United Nations since December 2001, when the subject was included in the agenda of the fifty sixth session as a supplementary agenda item at the request of France and Germany. The matter was discussed by a working group of the Sixth (Legal) Committee.

WHO considers the use of cloning for the replication of human individuals to be ethically unacceptable as it would violate some of the basic principles which govern medically assisted procreation. These include respect for the dignity of the human being and protection of the security of human genetic material.

In 1992 the Special Programme of Research, Development and Research Training in Human Reproduction (HRP) convened a scientific group to review the technical aspects of medically assisted procreation and related ethical issues.

For further information check the following websites:
http://apps.who.int/gb/ebwha/pdf_files/EB115/B115_ID2-en.pdf,
http://apps.who.int/iris/bitstream/10665/179625/1/WHA50_30_eng.pdf

5. Development of the conflict

Human cloning could have sounded like science fiction a few years ago, but with today's technologies human cloning is almost a reality. Nevertheless, current technology does not yet allow the possibility to create an *exact* human copy. Many experiments have already taken place, but with unsatisfying results. In 1996 a group of british scientist cloned "Dolly the sheep" in Scotland.

Recently, a pig was cloned as well, but after many attempts they could barely make an acceptable copy, which is one of the reasons that in many countries there is still a lot of doubt regarding the authorization of human cloning experiments, apart from ethical, moral and religious issues that do not approve of the subject.

There are many medical advantages as well as disadvantages regarding human cloning (both reproductive and therapeutic), of which some of the advantages are:

- The possibility to renew damaged tissues and grow new cells to replace them.
- People's ability to create genetically identical organs to the donor's, such as kidneys and bone marrow transplants.
- The benefit of studying cell differentiation at the same time as the study and development of cloning
- The possibility for sterile couples to have children who will have the genetic information of the mother or the father.

Human cloning may refer to "therapeutic cloning" particularly the cloning of embryonic cells to obtain organs for transplantation or for treating injured nerve cells and other health purposes, but more typically refers to "reproductive cloning," the use of somatic cell nuclear transfer (SCNT) to obtain eggs that could develop into adult individuals.

The debate regarding reproductive human cloning is a global discussion that hasn't been able to determine whether or not it should be allowed and there are two main reasons for this: First of all, because the science and knowledge behind the procedures are still very limited and far too many risks are involved. Most cloned animals end in miscarriage. A significant proportion fail to develop beyond early stages, and many are born either sick or deformed. It took 227 attempts to clone Dolly successfully! Many cloned animals suffer from a wide range of developmental problems and die prematurely. Second of all, some arguments against reproductive cloning are based on moral, ethical, religious and cultural grounds. The potential technology has to create humans has far reaching implications that threaten to upstage and destroy the centuries old values and practices upon which humanity has survived. No religion or society at this stage is prepared to allow clones of humans, and there is no ambiguity about this.

The debate regarding therapeutic human cloning is, however, somewhat different. The central objective of this technique is to cure disease, improve health and hence strive to improve the quality of life for humans. This calls for research and development in therapeutic cloning to improve the knowledge, skills, expertise and techniques to achieve the stated objective. The problem, however, is that therapeutic cloning requires embryonic stem cells, and to acquire these, early stage embryos are needed. This raises not only serious ethical, moral and religious concerns that revolve around the rights of the embryo, onset of life itself, hazards to women, etc., but also the fact that the technology can lead to potential for human cloning. With its widespread and unchecked use, the risk of the technology falling into the hands of those who are unscrupulous becomes very high.

Human cloning has occasionally been suggested as a way to improve the genetic endowment of mankind, by cloning individuals of great achievement, for example, in sports, music, the arts, science, literature, politics, and the like, or of acknowledged virtue. These suggestions seemingly have never been taken seriously. However, some individuals have expressed a wish, however unrealistic, to be cloned, and some physicians have on occasion advertised that they were ready to carry out the cloning. The obstacles and drawbacks are many and insuperable, at least at the present state of knowledge.

Biologists use the term cloning with multiple meanings, although all uses imply obtaining copies more or less precise of a biological entity. Three common uses refer to cloning genes, cloning cells, and cloning individuals. Cloning an individual, particularly in the case of a multicellular organism, such as a plant or an animal, is not strictly possible. The genes of an individual, the genome, can be cloned, but the individual itself cannot be cloned, as it will be made clear below.

Cloning genes or, more generally, cloning DNA segments is routinely done in many genetics and pharmaceutical laboratories throughout the world. Technologies for cloning cells in the laboratory are seven decades old and are used for reproducing a particular type of cell, for example a skin or a liver cell, in order to investigate its characteristics.

Individual human cloning occurs naturally in the case of identical twins, when two individuals develop from a single fertilized egg. These twins are called identical, precisely because they are genetically identical to each other.

Many countries have well developed facilities for embryonic cell research related to animals. In the absence of clear regulations and guidelines, the potential for exploitation and misuse therefore exists. At the same time, some Member States (as well as some other Muslim countries outside of the Eastern Mediterranean Region) are fast developing their scientific infrastructure, within which research and development for health figures strong and is gradually taking center-stage. The overarching challenge is, therefore, to find a balance, between the need to avoid the trampling of human dignity that may possibly be induced by human cloning, and the need for continued improvement in the quality of human life through research and development.

From the Islamic perspective, the debate on human embryonic cloning should hinge essentially on three key arguments: First, does cloning conflict with Islamic beliefs and to what degree is it permitted?; Second, what are the consequences of cloning in societies?; And third at what stage is an embryo considered a living being?

The Islamic Fiqh Academy, in its 1997 meeting, agreed that cloning does not contradict the Islamic faith. God is the creator of the Universe and therefore the advancing knowledge and technology development that has made cloning possible was preordained by God Almighty's will. Just as the person sowing the seed is not the creator of the resulting plant, so the cloning technician is not the actual creator of the plant or animal thus produced. The scientific breakthrough in cloning can thus be regarded in a way as divine will to provide mankind with moral training and maturity. There is a general consensus that cloning of plants or animals to improve quality and productivity as well as for cure of human diseases is not prohibited in Islamic law.

However Islamic countries and Muslim scholars are all unanimous in their opposition to human cloning. There have been numerous calls for banning human cloning throughout the Muslim world by way of various fatwas, opinion of religious leaders, community polls and national/international Islamic bodies. The main reasons cited include the fear that man, by creating life, is attempting to play God. Only God is the creator-not humans. It is an unnatural way of reproduction that is contrary to what God has ordained for humans. There will be loss of kinship and lineage, both of which are central and core values in Islam. Who would be the father, mother, brother or sister of the clone? Mixing of kinship or the loss of it, would be considered as haram, and is therefore prohibited in the religion. Cloning is also feared because of its ability to create designer human beings, superior or inferior, depending upon the motives and discretion of the architect (who will clone). This of course will be of great harm to societies and nature. The fact is that all major religions of the world oppose human cloning, principally because of the fear that a) it would corrupt, taint or destroy traditional family relationships and lineage, b) the destruction of embryos for research is tantamount to murder, and c) it meddles with God's universe in a way that humans should not.

They found that 29 countries (in red below) had an outright legal ban on genetic editing. In China, India, Japan, and Ireland, bans existed but didn't necessarily have legal enforcement mechanisms behind them. In the case of China, the group who announced their famous results in April was able to get permission to work with non-viable embryos that could never have been brought to term; that's how they worked within China's guidelines.

6. Questions

1. Is your country for or against the different types of cloning?
2. If cloning was legal, what would the possible health and safety issues be?
3. Is reproductive cloning an ethically unacceptable matter?
4. Can reproductive cloning be considered a violation of one's intimacy?
5. What restrictions should exist on therapeutic cloning?
6. What restrictions should exist on reproductive cloning?

7. Glossary

Clone: from the Greek word for twig, denotes a group of identical entities. It has recently also come to mean a member of such a group and, in particular, an organism that is a genetic copy of another organism. The term applies not only to entire organisms but also to copies of molecules (such as DNA) and cells.

Embryo: a new organism in the earliest stage of development.

Stem cells: cells that have the potential to develop into many different cell types in the body during early life and growth. In addition, in many tissues they serve as a sort of internal repair system, dividing essentially without limit to replenish other cells as long as the person or animal is still alive.

Reproduction: biological process by which new individual organisms are produced from their "parents".

Human reproductive cloning: creation of an individual who has identical nuclear genetic material (DNA) to an existing human being, and who is allowed to develop to term and beyond.

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