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MEDICAL ETHICS

Cloning

Cloning in biotechnology refers to the process of creating clones of organisms or copies of cells or DNA fragments (molecular cloning).

(Animal to be cloned from an adult somatic cell, using the process of nuclear transfer).

There are modified methods for cloning, which is called therapeutic or histological cloning. This is done by taking a stem cell from the tissue to be cloned and merging it with an egg to form from the fetus, and then the stem cells that are responsible for forming a specific tissue from the body such as the skin or The pancreas or reproductive cells (cells of the testes or ovaries) and these cells are grown in another organism to begin to multiply and form the tissue.

What are the risks of human cloning ?

If human cloning is destined to exist, which is very likely, and perhaps soon, this will be accompanied by many social, humanitarian and psychological problems, including: -

- 1 - There will be a disorder of human, and the disorder that follows in society, and the numbers of males or females may be disturbed. If the clones are all male, then what will happen?
- 2- Inheritance will disrupt, and the family entity will shake, and the disruption of the stable social structure and the stormy foundations of kinship, genealogy.
- 3- In cloning, he may resort to criminal methods such as cloning a person without his permission, selling cloned embryos.
- 4- Reproduction of humans will increase the crime rate and will also increase the chances of avoid punishment because of the similarity of copies, so the actual perpetrator may flee and arrest a similar one.
- 5- Human cloning means the final dispensation of a man, and this means the breakdown of the innate system in which God invaded people by intermarriage between male and female as the nucleus of the family.
- 6- The cloned person will lose his identity and become anonymous.
- 7- Cloning is an aggression against religions and human values, corruption.
- 8- Cloning a human means attacking the sanctity of the human being and destroying the most important rules of ethics that distinguished humanity from other creatures.

9- The animals that were formed by cloning suffer from severe weakness in the immune system cloned animal lives in poor health and many of them develop sudden death.

Permissibility conditions for animal cloning.

- 1- It must bring about a real benefit to human.
- 2- It must not result in harm which is greater than the benefit it has produced.
- 3- It must not bear any kind of harm to the animal used in the process.

Human cloning?

Prohibited for the following reasons:

- 1- It contradicts with diversity of creation.
Corruption to human life, universe created on the base of diversity, while human cloning based on duplicating characteristics of the original.
- 2- If human cloning is permitted, how can we determine the relation of the cloned in regard to the original; will he be his brother, his father, or even himself?
- 3- Cloning contradicts with the pattern of creating things in pairs, Allah created pairs, cloning goes against this principle since it depends on only one gender.

Dolly Sheep

- Dolly was the first clone produced from a cell taken from an adult animal.
- This cloning process is highly inefficient, with dolly the only lamb that survived to adulthood from 434 attempts.
- Dolly was the end result of a long research program funded by the British government at the Roslin Institute in Scotland. Using the technique of somatic cell nuclear transfer, where the cell nucleus from an adult cell is transferred into an unfertilized oocyte that has had its nucleus removed.
- The zygotic cell is then stimulated to divide by an electric shock, and the blastocyst that is eventually produced is implanted in a surrogate mother.
- Dolly lived for her entire life at the Roslin Institute.
- In the autumn of 2001, at the age of five, dolly developed arthritis and began to walk stiffly, but this was treated with anti-inflammatory drugs.
- On february 14, 2003, dolly was Euthanised because of a progressive lung disease, dolly lived only till six years of age.
- An autopsy showed she had a form of lung cancer called jaagsiekte that is fairly common disease of sheep, and is caused by retrovirus.

- Roslin scientists stated that they think she died because she kept indoor for security reasons.

