Your Name

Instructor Name

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Date

Cloning, IPSCs, and Future Contributions

Cloning, in biology, is referred to as the copying of a molecule, cell, plant, animal or human being in genetically. Mammalian cloning was the first success of the cloning process in which an embryo was created with a body cell and egg cell. Induced pluripotent stem cells (IPSCs) are those adult cells that are reprogrammed genetically to an embryonic stem cell. IPSCs were induced from the skin of a mice for the first time. The identity of IPSCs is changed and they are reverted to a state like an embryo without using eggs. For the procedure of IPSCs, eggs are not required. IPSCs can be processed with same gene order as of the nucleus donor. For Blastocyst of a normal human being is not destroyed and destruction is not a requirement to carry the procedure. Cloning is carried out by asexual reproduction, DNA is removed and manipulated with the help of a test tube and DNA is replaced in the cell again. Animals that have been cloned suffer more from Large Offspring Syndrome.

The neurons are lost in Parkinson’s disease or a spinal cord injury. IPSCs can be used to produce the parts for the damaged organs and cells. This can also help in the recovery of the genetic mutations which cause the diseases before they reintroduce the disease-causing cells.

IPSCs can help restore the damaged tissues and can avoid reactive responses to the immune system. Parkinson’s disease is a neurodegenerative disorder. IPSCs is considered as a methodology for achieving disease-altering treatment. In the neurological damage, stem cells have been used for the therapy. The basic and important advantage is that human embryos are not required. In sickle cell anemia, cells are used from the amniotic fluid and it can be used for the prenatal diagnosis after reprogramming it with IPSCs. This can help in the diagnosis of a fetus which has been effected by illness.

Works Cited

AuthorLastName, FirstName. Title of the Book Being Referenced. City Name: Name of Publisher, Year. Type of Medium (e.g., Print).

LastName, First, Middle. “Article Title.” Journal Title (Year): Pages From - To. Print.

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