CDB SEMINAR

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Royan Institute, Tehran, Iran

Tuesday, December 9, 2008
16:00~17:00 A7F Seminar Room

Human Embryonic Stem Cell Research at Royan Institute

Summary

Human embryonic stem cells (hESCs) derived from a preimplantation embryo appear to have an unlimited capacity to self-renew in cell culture, and they are also able to differentiate into hundreds of adult cell types. Therefore, hESCs offer a platform technology that has the potential to elucidate the molecular mechanisms that determine adult cell fate, generate cellular models for discovery of new drugs, and create populations of differentiated cells for novel transplantation therapies. During the last 5 years, we have made great strides in developing in vitro protocols for establishment and differentiating hESCs into different cells along with their transplantation into animal medels. Here, our studies about hESC establishment, differentiation into cell types representing the three embryonic germ lineages, and their potential applications in cell replacement therapy and our new experiences on the reprogramming of human skin fibroblasts into induced pluripotent stem (iPS) cells will be presented.

Host:
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