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Name of journal: *World Journal of Stem Cells*

ESPS Manuscript NO: 15567

Columns: MINIREVIEWS

Search for naive human pluripotent stem cells

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Abstract

Normal mouse pluripotent stem cells were originally derived from the inner cell mass (ICM) of blastocysts and shown to be the *in vitro* equivalent of those pre-implantation embryonic cells, and thus were called embryonic stem cells (ESCs). More than a decade later, pluripotent cells were isolated from the ICM of human blastocysts. Despite being called human ESCs, these cells differ significantly from mouse ESCs, including different morphology and mechanisms of control of pluripotency, suggesting distinct embryonic origins of ESCs from the two species. Subsequently, mouse pluripotent stem cells were established from the ICM-derived epiblast of post-implantation embryos. These mouse epiblast stem cells (EpiSCs) are morphological and epigenetically more similar to human ESCs. This raised the question of whether cells from the human ICM are in a more

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