

Pluripotent Stem Cells – Potential Uses in the Pharmaceutical Field

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ABSTRACT The cells can divide and differentiate into several types of cells in an organism. It is not able to differentiate as the extraembryonic tissues, which are termed as the 'pluripotent cells'. The transcription factors such as, *SOX-2*, *C-MYC*, *OCT-4* and *KLF-4* are involved in the maintenance of pluripotency. Pluripotent stem cells (PSCs) can self-renewal cells, which may be either induced pluripotent stem cells (iPSCs) or embryonic stem cells (ESCs). Pluripotent cells can be used in the treatment of diseases like cancer, cosmetics and the healing of skin burns. The current review majorly focuses on the PHCs along with their history, their molecular markers and major transcription factors in a brief manner. The techniques including sensors and assays used for the assessment of pluripotency have also been discussed.