

Stem Cells

From Bench to Bedside

Stem cell biology continues to gain tremendous enthusiasm driven by the hope of finding cures for several diseases. Stem cells have been isolated from embryos, fetal and adult organs. Embryonic stem cells (ESCs) are pluripotent as they can be converted into all the tissues of the human body. Recently, adult skin cells were reprogrammed to the embryonic state with pluripotent genes to produce personalized tissues to prevent rejection (hiPSCs) and were also transdifferentiated directly into nerve cells (IN cells) using neuronal genes thus bypassing the embryonic state. These two breakthroughs pave the way to bringing stem cell-derived tissues closer to clinical application. This second edition contains both basic and clinical aspects and is aimed at undergraduates, postgraduates, scientists and doctors. It is a comprehensive text written by prominent scientists in the field. Both the editors are also renowned stem cell scientists and senior academics at the National University of Singapore.

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