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(54) Title: A METHOD FOR EFFICIENT TRANSFER OF HUMAN BLASTOCYST-DERIVED STEM CELLS (HBS CELLS) FROM A FEEDER-SUPPORTED TO A FEEDER-FREE CULTURE SYSTEM

(57) Abstract: A method for the transfer of human blastocyst-derived stem cells (hBS cells) to feeder-free culture system and propagation of the cells in such a feeder-free culture system, the method comprising the following steps of a. transferring the blastocyst-derived stem cells from feeder to feeder free culture by mechanical treatment. b. optionally, culturing the blastocyst-derived stem cells under feeder cell free growth conditions in a suitable growth medium and/or on a suitable support substrate, and c. optionally, passaging the blastocyst derived stem cell line every 3-10 days by enzymatic and/or mechanical treatment. The invention also relates to the application of hBS cells cultured under feeder free condition in medicine (e.g. myocardial regeneration) and screening and toxicity tests.