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(54) Title: CELLS OF THE CARDIOMYOCYTE LINEAGE PRODUCED FROM HUMAN PLURIPOTENT STEM CELLS

(57) Abstract: This invention provides populations human cells of the cardiomyocyte lineage. The cells are obtained by causing cultures of pluripotent stem cells to differentiate in vitro, and then harvesting cells with certain phenotypic features. Differentiated cells bear cell surface and morphologic markers characteristic of cardiomyocytes, and a proportion of them undergo spontaneous periodic contraction. Highly enriched populations of cardiomyocytes and their replicating precursors can be obtained, suitable for use in a variety of applications, such as drug screening and therapy for cardiac disease.