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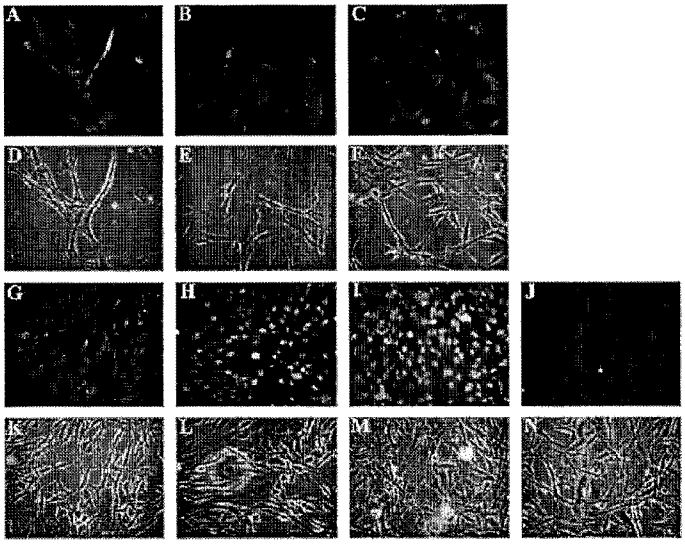
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(54) Title: METHOD OF PREPARING CELL FOR TRANSPLANTATION



(57) Abstract: The invention features a method of producing cells for transplantation into myocardial tissue of a mammal. The method comprises the steps: (a) providing bone marrow stem cells that have not been immortalized; (b) passage culturing two times said bone marrow stem cells under conditions that maintain the characteristics of bone marrow stem cells; (c) culturing said bone marrow stem cells in cardiac specific media to differentiate into cardiomyogenic cells; and (d) collecting the cells of step (c) when about 80 to 90% of said cells are cardiomyogenic cells. The cardiomyogenic cells induced according to the method can be clinically applied more suitably than those induced using demethylating agent such as 5-azacytidine, and therefore, they provide induced bone marrow stem cells of a mammal into cardiomyocytes having high rates of cell incorporation and cell survival for treating a mammal (e.g., a human) diagnosed as having a disorder characterized by insufficient cardiac function.

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