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(54) Title: PRODUCTION OF REPROGRAMMED CELLS WITH RESTORED POTENTIAL

(57) Abstract: A method for treating cells and/or nuclear transfer units and/or stem cells in culture with such compounds, individually or in combinations, is described. The method results in a globally hypomethylated genome and a restoration of cell differentiation and/or developmental potential, or potentiality. In addition, a method for the in vitro production of reprogrammed cells which have had differentiation potential (totipotential, pluripotential, or multipotential) restored by demethylating the genome is described.