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(54) Title: METHOD OF *IN VITRO* DIFFERENTIATION OF NEURAL STEM CELLS, MOTOR NEURONS AND DOPAMINE NEURONS FROM PRIMATE EMBRYONIC STEM CELLS

(57) Abstract: A method of differentiating embryonic stem cells into neural and motor cells is disclosed. In one embodiment, the invention comprises culturing a population of cells comprising a majority of cells that are characterized by an early rosette morphology and are $Sox1^-/Pax6^+$ in the presence of FGF2, FGF4, FGF8, FGF9, or RA wherein the cells are characterized by an neural tube-like rosette morphology and are $Pax6^+/Sox1^+$.

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