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(54) Title: ENDOTHELIAL CELLS DERIVED FROM HUMAN EMBRYONIC STEM CELLS

(57) Abstract: The invention is a population of embryonic endothelial cells produced *in vitro* from human embryonic stem cells. The cells produce platelet endothelial cell adhesion molecule-1 and are vasculogenic. The cells may be combined with a cell support substrate, seeded on a polymer matrix, or combined with a cell-support substrate that is infused into a polymer matrix. The cells may also be injected directly into a tissue site.