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(54) **Title**: POPULATIONS OF SMOOTH MUSCLE CELLS OF SPECIFIC EMBRYONIC LINEAGES

(57) **Abstract**: This invention relates to the production of populations of Smooth Muscle Cells (SMCs) of specific embryonic lineages, such as neuroectodermal and mesodermal SMCs. Pluripotent stem cells are cultured in one or more lineage induction media to produce progenitor cells of a defined embryonic lineage, which are then cultured in an SMC induction medium to produce a population of SMCs of the embryonic lineage. Populations of SMCs of defined lineages may be useful, for example, in accurately modelling vascular disease.