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(54) Title: IN VITRO MICRO-ORGANS, AND USES RELATED THERETO

(57) Abstract: Micro-organ cultures which include isolated populations of cells having specific characteristics are described. Salient features of the subject micro-organ cultures include the ability to be maintained in culture for relatively long periods of time, as well as the preservation of an organ microarchitecture which facilitates, for example, cell-cell and cell-matrix interactions analogous to those occurring in the source organ. The micro-organ cultures of the invention can be used in methods for delivering gene products to recipient subjects, for identifying cell proliferative and cell differentiating agents, and identification and isolation of progenitor and stem cells. In addition, the micro-organ cultures of the present invention can be used in methods for identifying inhibitors of cell proliferation, cell differentiation and viral infectivity. In other embodiments, the micro-organ cultures can be used for transplantation.