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(54) Title: MEANS AND METHODS FOR IMPLANTING CELLS SECRETING A THERAPEUTIC COMPOUND

(57) Abstract: The present invention relates to a device for implantation into a mammalian host, said device comprising a) a dialysis tube with a lumen and a dialysis membrane enclosing said lumen, wherein i) the dialysis tube has an outer diameter of from 20 μ m to 600 μ m; and ii) the dialysis membrane has a molecular weight cutoff of from 25 kDa to 150 kDa and comprises at least one material selected from the group consisting of polyethersulfone, polyarylethersulfone, polyethylene, polytetrafluoroethylene, polyvinylidene fluoride, and polypropylene; and b) a therapeutic composition disposed within the lumen of the dialysis tube, wherein said therapeutic composition comprises a plurality of cells secreting a therapeutic compound and a matrix material embedding said cells secreting a therapeutic compound, wherein the matrix material is selected from alginate, collagen, fibrin, extracellular matrix material, synthetic hydrogel, and acrylate, in an embodiment the matrix material is alginate. The present invention further relates to a method of producing a device for implantation, a port system, and a cell secreting a therapeutic compound for use in treating disease by implantation of said cell in a device for implantation according to the present invention.

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