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(54) Title: BIODEGRADABLE TISSUE REPLACEMENT IMPLANT AND ITS USE

(57) Abstract: Tissue replacement implants are disclosed that include polarized retinal pigment epithelial cells on a poly(lactic-co-glycolic acid) (PLGA) scaffold, wherein the PLGA scaffold is 20-30 microns in thickness, has a DL-lactide/glycolide ratio of about 1:1, an average pore size of less than about 1 micron, and a fiber diameter of about 150 to about 650 nm. Also disclosed are methods of treating a subject with a retinal degenerative disease, retinal or retinal pigment epithelium dysfunction, retinal degradation, retinal damage, or loss of retinal pigment epithelium. These methods include locally administering to the eye of the subject the tissue replacement implant. In further embodiments, methods are disclosed for producing the tissue replacement implant.

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