This Sheet Has Been Replaced

CORNEAL ONLAYS

ABSTRACT

Corneal onlays for use in surgical implantation into or onto the cornea of a mammal are described. The corneal onlays according to the invention have an optical axis region with optical characteristics which provide visual acuity therethrough and are comprised of a non-biodegradable non-hydrogel ocularly biocompatible material, characterized in that the onlay has a porosity sufficient to allow passage therethrough of tissue fluid components having a molecular weight greater than 10,000 daltons so as to provide for a flux of tissue fluid between cells anterior of the implanted onlay and cells posterior thereof. The porosity of the optical axis region is such that it allows the flux of tissue fluid components whilst excluding ingrowth of ocular tissue. The onlay is further characterized by being adapted for epithelial recolonization. Also described are methods for correcting the optical property of an eye or altering the appearance thereof which comprises surgically implanting into or onto the cornea a corneal onlay as described above.