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(54) Title: PROCESS FOR SAFELY PROVIDING RETINAL PHOTOTHERAPY BASED ON DETERMINATION OF RPE
MELANIN LEVELS

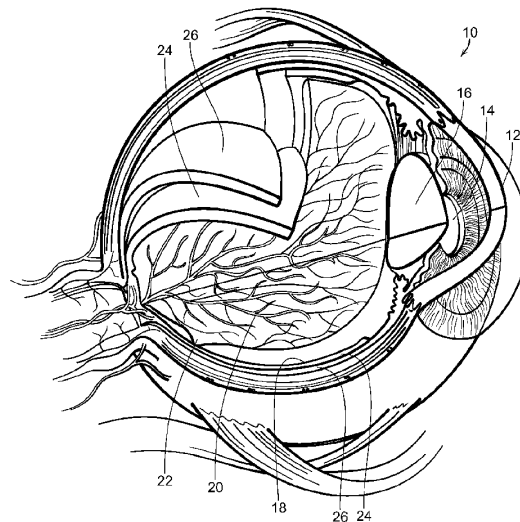


FIG. 1

(57) Abstract: A process for safely providing retinal phototherapy includes generating an interferometric signal or pattern by applying a near infrared light beam to a retinal pigment epithelium of a retina of an eye. A level or concentration of melanin within the retinal pigment epithelium of the retina is compared to a normal level or concentration using the detected interferometric signal or pattern. One or more treatment parameters of the retinal phototherapy is adjusted if the level or concentration of melanin in the retinal pigment epithelium of the eye exceeds the normal level or concentration by a predetermined amount.

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WO 2020/112164 A1

WO 2020/112164 A1

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