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2019;16(3):420-422

# ПАТЕНТЫ/РАТЕЛТS

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# **HOLOGRAPHIC REAL SPACE REFRACTIVE** SEQUENCE

# **VEYEZER LLC [US] +**

A system and a method for holographic refraction eye testing device is disclosed. The system renders one or more three dimensional objects within the holographic display device. The system updates the rendering of the one or more three dimensional objects within the holographic display device, by virtual movement of the one or more three dimensional objects within the level of depth. The system receives input from a user indicating alignment of the one or more three dimensional objects after the virtual movement. The system determines a delta between a relative virtual position of the one or more three dimensional objects at the moment of receiving input and an optimal virtual position and generates prescriptive remedy based on the delta.

WO2019161499 (A1) - 2019-08-29

# **INTRAOCULAR IRIS PROTECTOR AND METHOD OF USING SAME**

# **ROY FRANCIS [CA] +**

An iris protector to reduce a likelihood of iris prolapse in an eye comprising an iris during an ophthalmic surgical procedure. The iris protector comprises an iris engaging portion and a plurality of engaging elements configured to facilitate the insertion and the removal of the iris protector inside the eye through an incision. Once inside the eye, the iris protector mechanically prevents a portion of the iris in the vicinity of the incision from prolapsing through the incision. The iris protector may be provided as part of a sterilized kit alone or with an applicator (e.g. tweezers, etc.), a manipulator or any combination thereof.

# с указанием номера документа, отраженного в реферате

WO2019165280 (A1) - 2019-08-29 WO2019165263 (A1) - 2019-08-29

# **MEASURING DARK ADAPTATION**

# THE SCHEPENS EYE RES INSTITUTE INC [US] +

Methods, systems, and devices are provided for measuring dark adaptation of one or both eyes of a patient, and more particularly, for measuring dark adaptation with a mobile device application. An exemplary method includes exposing an eye of a patient to a light source to bleach a retinal location of the eye, displaying on a mobile device a figure with a luminance and waiting until the patient communicates with the mobile device to acknowledge that the patient can see the figure, measuring and recording a level of the luminance and a time period between first displaying the figure and the patient communicating with the mobile device, continuing to display additional figures with decreasing luminance one at a time, and determining by a processor dark adaptation measurements of the patent based on the measured and recorded luminance and time periods.

WO2019161434 (A1) - 2019-08-29

# **COMPOSITION AND METHOD OF TREATMENT** FOR DRY A.M.D. (AGE RELATED MACULAR **DEGENERATION**)

# EYE CO PTY LTD [AU] +

A method of treating dry AMD in a subject comprising administering to the subject a therapeutically effective amount of an anti-inflammatory to thereby treat the dry AMD is disclosed. Also disclosed is a pharmaceutical composition comprising a therapeutically effective amount of one or more anti-inflammatory and a pharmaceutically acceptable carrier, diluent or excipient when used to treat dry AMD and use of the pharmaceutical composition for the manufacture of a medicament for the treatment of dry AMD. The one or more antiinflammatory may comprise one or more of a COX inhibitor, one or more mineralocorticoid or a therapeutically active analogue, derivative, homolog, pharmaceutically acceptable salt or conjugate thereof, one or more glucocorticoid or a therapeutically active analogue, derivative, homolog, pharmaceutically acceptable salt or conjugate thereof, an antileukotrine and/or a leukotriene receptor antagonist. In one embodiment the antiinflammatory comprises fludrocortisone.

US2019262174 (A1) - 2019-08-29

# VACUUM LOSS DETECTION DURING LASER EYE SURGERY

# **OPTIMEDICA CORP [US] +**

Apparatus to treat an eye with an ophthalmic laser system comprises a patient interface having an annular retention structure to couple to an anterior surface of the eye. The retention structure is coupled to a suction line to couple the retention structure to the eye with suction. Liquid is added above the eye to act as a transmissive medium. A coupling sensor is coupled to the suction line to determine coupling of the retention structure to the eye. A separate pressure monitoring circuit having a much smaller volume than the suction line is connected to the annular retention structure to measure suction pressure therein. A system processor coupled to the monitoring pressure sensor includes instructions to interrupt firing of a laser when the pressure measured with a monitoring pressure sensor rises above a threshold amount.



Apparatus to treat an eye with an ophthalmic laser system comprises a patient

US2019262126 (A1) — 2019-08-29

### **ARTIFICIAL ACCOMMODATING LENS COMPLEX**

# CUMMINGS ARTHUR BERNARD [IE]; BOLLE FRANCIS [ZA] +

The present invention provides an arrangement (600) for an artificial eye lens. The arrangement comprises at least two ring-shaped elements (610) and a plurality of arched ribs (620). The plurality of arched ribs connects the two ring-shaped elements. The ring-shaped elements and plurality of arched ribs form a space for housing the artificial eye lens. The ring-shaped elements arc moveable with respect to each other along a common axis (x). It comprises further a collapsible tape (64) for define a maximum range of deformation of the arrangement. US2019265514 (A1) - 2019-08-29

# SYSTEMS AND METHODS FOR ASTIGMATISM CORRECTION IN A HEAD-MOUNTED DISPLAY

# FACEBOOK TECH LLC [US] +

The disclosed system may include (1) a lens assembly that provides an electronically controllable cylindrical power, oriented along an electronically controllable axis, on an optical path between a display device and an eye of a viewer in response to at least one first control signal, and (2) a controller that (a) receives information indicating a cylindrical power component and a cylindrical axis component of an eyeglass prescription for the viewer, and (b) generates, based on the information, the at least one first control signal to cause the lens assembly to provide the cylindrical power component, oriented along the cylindrical axis component, for the viewer. Various other systems and methods are also disclosed.

US2019264171 (A1) - 2019-08-29

# DIFFERENTIATION OF PLURIPOTENT STEM CELLS INTO CORNEAL CELLS

# TAMPEREEN YLIOPISTO [FI]; TTY SAEAETIOE SR [FI] +

The present description relates to differentiation of stem cells into eye precursor cells and further into differentiated corneal cells, such as corneal epithelial cells. Differentiated corneal cells may contribute to treatment and research of corneal conditions, diseases, and pathologies, as well as to toxicological studies and drug development.

US2019261887 (A1) - 2019-08-29

# DETECTION OF METAL ARTIFACTS IN PATIENTS EYES PRIOR TO MRI EXAMINATIONS

# **KONINKLIJKE PHILIPS NV [NL] +**

A device (10) configured to detect the presence of metal artifacts in a patient's eye includes a head mount (14) configured to receive at least a portion of the patient's head. At least one inductor coil (12) is disposed on or in the head mount and positioned to inductively couple with at least one eye of the patient's head received into the head mount. An inductance meter (18) is operably connected to the at least one inductor coil to measure an inductance as a change of frequency of the at least one inductor coil. A processor (22) is programmed to: determine whether the inductance is greater than an inductance threshold value; and generate an indication of at least one metal artifact when the inductance is greater than the inductance threshold value. A display component (24) is configured to display the indication.

# US2019261972 (A1) - 2019-08-29

# **ORBITAL TISSUE RETRACTOR**

# LIQID MEDICAL PTY LIMITED [ZA] +

An orbital tissue retractor 10 for use in a surgical operation in the region of an eyesocket, comprises an orbital tissue retractor body 12 and a handle 14 extending therefrom for manipulation of the tissue retractor body by a surgeon. The tissue retractor body comprises a channel formation 16 defining a channel 17. The channel formation 16 has a pair of spaced side wall sections 24 which define concave curved ocular abutment formations 26 which conform to an anatomical curvature of the ocular globe for abutment with the ocular globe N. The tissue retractor body has open proximal end 22 and an open distal end 20. The tissue retractor body tapers from the proximal end to the distal end, with a portion of the channel formation at the distal end being curved so as to accommodate and cradle the optic nerve therein. The retractor body has a curved base wall section 28 conforming to an anatomical curvature of the orbit.

