Optometry DistList
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Date: 4 November 2017
From: Geetha (geethasravani@lvpei.org)
Subject: Boston Keratoprosthesis in Epidermolysis Bullosa

Sravani, Mohamed and Sangwan from Ophthalmic Biophysics, L V Prasad Eye Institute, Hyderabad, India recently published a case report in the journal Ocular Immunology and Inflammation (doi: 10.1080/09273948.2017.1390588). This case study describes the complications and long-term visual prognosis of limbal stem cell deficiency (LSCD) in Epidermolysis Bullosa (EB) after keratoprosthesis (KPro) implantation. The authors conclude by saying that although Boston Kpro is the intervention option in LSCD in this case, due to the complications of the systemic disease EB, stable ocular surface is not maintained over a long period with Kpro.

Full text of the article can be accessed at:
http://www.tandfonline.com/doi/full/10.1080/09273948.2017.1390588 and http://www.tandfonline.com/eprint/cFhIQP9Dz8KY42Ma4Gh4/full
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Date: 3 November 2017
From: Jesus García Poyatos (jgarcia@cgcoo.es)
Subject: Journal of Optometry – Journal Information

The Journal of Optometry (J Optom) is the scientific, double blind, peer-reviewed publication of the Spanish General Council of Optometrists (www.cgcoo.es). It is an open access journal published every 3 months and its articles are freely available without charge. Audience of J Optom includes Optometrists, Ophthalmologists and Visual Scientists as well as undergraduate and post-graduate students in these fields.

The J Optom welcomes the submission of original manuscripts and reviews describing clinical and experimental research in the field of Optometry, Ophthalmic Optics, Ocular Surface and Basic and Applied Visual Science in general; research on Instruments and Techniques, Reports of Clinical Cases, and clinically relevant laboratory investigations are also welcomed. Journal of Optometry accepts and publishes articles in English irrespective of the native language of the authors. Within each issue, all abstracts will be translated into Spanish by the Editorial Office.

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Date: 6 November 2017
From: M.Shiva Ram (shivaram.ram180@gmail.com)
Subject: Potential treatment to stop glaucoma in its tracks – ScienceDaily

Vision scientists at the University of California, Berkeley, and the University of Toronto have discovered that naturally occurring molecules known as lipid mediators have the potential to halt the progression of glaucoma.

Using rodent models, Gronert and fellow researchers found that inflammation-regulating lipid mediators known as lipoxins, secreted from star-shaped cells known as astrocytes, stopped the degeneration of retinal ganglion cells in rats and mice with glaucoma.

Specifically, researchers found that astrocytes, which help maintain brain function and form the nerve fiber layer of the retina and optic nerve, release therapeutic biological agents known as lipoxins A4 and B4, but only when the astrocytes are at rest and maintaining nerve function.

"It is commonly assumed that astrocytes activated by injuries release stress signals that kill off ganglion cells in the retina, causing optic nerve damage," said Flanagan. "However, our research discovered that astrocytes that are triggered by injury actually turn off novel neuroprotective signals that prevent optic nerve damage."

Researchers discovered secretions of lipoxins A4 and B4 in resting astrocytes in culture in the retina and optic nerve head. To test their potential as a treatment, they administered the lipoxins to rodents eight weeks after the onset of glaucoma-like damage and neurodegeneration. At 16 weeks, they gauged electrical activity in the rodents' ganglion cells, among other measures, and found that lipoxin B4 in particular stopped the cells' degeneration.

"This little-known lipid mediator has shown the potential to reverse cell death. We know of no drug that can do this. At the same time, lipoxins have been explored as promising drug targets for treating inflammatory diseases, but nobody has been looking at them as being neuroprotective," Gronert said.

At present, the treatment option for glaucoma is to lower ocular pressure, but there are no effective treatments for preventing or stopping the neurodegeneration of glaucoma, which is irreversible and eventually leads to blindness, Flanagan said

The study authors are excited at the prospect of further investigations into the therapeutic benefits and mechanisms of lipoxins A4 and B4 and their potential to stop or reverse neural damage. They have jointly filed a patent application for use of lipoxin A4 and B4 to treat glaucoma and neurodegenerative diseases. Their eventual goal is to test the lipoxins as drugs in humans.

For full text article, please click here: https://www.jci.org/articles/view/77398
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Date: 15 November 2017
From: Paula Mukherjee (paulaoptom@gmail.com)
Subject: World Sight Day – A report by Optometry Council of India

World Sight Day celebration this year by Optometry Council of India was on a mega scale. Eye care awareness walks were conducted in 5 cities. It commenced in Pune on October 2nd 2017, followed

by Bangalore on 12th October, Ahmadabad on 13th October, Chennai 15th October, and culminated in Kolkata on 22nd October. Along with such awareness walks, radio talk shows on myopia and awareness on need for eye care was aired on 12th October 2017 in cities all over India. World Sight Day and awareness walks have become synonymous with optometrists ever since OCI commenced organizing such events on a yearly basis. Apart from the walkathon, local associations also performed eye screening camps, and held discussion forums and awareness activities in general hospitals.
Click here for complete report:
http://www.optometrycouncilofindia.org/sites/default/files/World%20Sight%20Day%202017%20Final%20Report.pdf
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Date: 13 November 2017
From: Sandhya Shekar (sandhya.shekar@indiavisioninstitute.org)
Subject: Meet the 'Eyeborg': The Man with a Camera Eye - LiveScience

The cyborg revolution has developed into one glowing eyeball at a time.

Rob Spence, a documentary filmmaker from Canada, has a prosthetic eye that doubles as a video camera. Spence accidentally lost his eye since childhood and ended up with a prosthetic eye.

With a help of radio-frequency engineer and designer, he designed a camera eye. The wireless camera sits behind a prosthetic eye. The equipment to create the camera eye includes components such as a micro transmitter, a small battery, a miniature camera and a magnetic switch that allows Spence to turn the camera on and off. Later, an electrical engineer helped him design a tiny circuit board that can take all the data from the camera and send it out to the wider world via a receiver.

So far, the camera has no connection to his brain or his optic nerve, so it's perhaps not fair to call Spence a true cyborg. The camera can record about 30 minutes of footage before needing to be recharged, which means it's never on all the time. The camera is also fitted with a glowing red LED light, so anyone who is being recorded knows they are being recorded.

For complete article, please visit: https://www.livescience.com/59485-man-has-cyborg-camera-eye.html
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Date: 7 November 2017
From: Sivakamasundari Jeyavel (sivajeyavel.ivi@gmail.com)
Subject: Protective Eyewear for Agricultural Workers

Agriculture is one of the harzardous occupations for the eyes. The process of farming, equipment used and spraying of fertilizers, a common practice among farmers have the potential to cause ocular injuries. So, it is advised to wear safety glasses.

Some of the main causes of agriculture-related eye injuries include: Accidental direct trauma with farm implements (e.g. cutlass, hoe, fishing hook, etc.);Vegetable/plant/organic material hitting the eye or spillage into the eye (cornstalks, sticks/twigs, palm tree stalks, thorn, leaf, kernel, etc.).

The effects of injury to the eye include: Embedded foreign body in the eye, corneal abrasion, Traumatic cataract, Penetrating laceration resulting in lens injury, vitreous hemorrhages, or retinal tear/detachment and often requiring enucleation/evisceration.

Protective eyewear can prevent eye injuries in upward of 90% of cases. Safety glasses should be impact resistant with wrap-around lenses for the most complete protection. Safety eyewear conferred significant protection against work-related eye injuries in agriculture. Although safety eyewear was widely adopted by the workers, barriers reported by them will need to be addressed to make such programs more effective.

For complete article please click here: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4790164/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5621270/
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