

Optometry DistList

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Date: 14 September 2017

From: Shekhar Nambiar (snambiar222@gmail.com)

Subject: 2nd World Congress of Optometry – The Conclusion

The second World Congress of Optometry 2017 concluded in Hyderabad on Wednesday, 13 September, resolves to work towards an equitable eye health system. The biennial congress is a World Council of Optometry (WCO) initiative organized in partnership with the Asia Pacific Council of Optometry (APCO) and the India Vision Institute (IVI).

Over 1,350 of the world's optometry leaders, clinicians, vision science professionals, and educators participated in the conference. They shared ideas and knowledge with one another, and discussed new trends and research developments. The conference had 30 exhibitors representing ophthalmological suppliers and the optical industry participates.

Leading practitioners and professionals made instructional presentations in the education and scientific tracks. There were 16 workshops and nine keynote speakers on a range of areas with a view to educating professionals on new developments in the field and to put those in practice.

In addition to apprising themselves of the latest scientific developments and practices, participants also had the opportunity to network with world leaders in the Optometry field and to share experiences with one another.

The incoming President of the World Council of Optometry, Dr Scott Mundle, expressed tremendous satisfaction at the success of the conference and the positive strides the Indian optometry profession has been making. He also announced a resolution calling for the Indian government to set up an 'Optometry Council' to regulate the profession. He said he was optimistic about the future of Optometry in India.

The CEO of IVI and WCO National Organising Committee Chair, Vinod Daniel, said “It is most gratifying that we had so many eye health professionals from around the world participated in the conference, the first such event in India. We hope the goals set at the conference would further encourage everyone to work towards attaining targets.”

Date: 18 September 2017
From: Sheeba Swarna (sheeba.swarna@indiavisioninstitute.org)
Subject: Indian Optometry institution named after Prof Brien Holden

Prof Brien Holden’s influence in eye care in India has been immortalized following the inauguration of the Brien Holden Institute for Optometry and Vision Sciences by L.V. Prasad Eye Institute (LVPEI) on 13 September 2017. The newly named institution, which incorporates the Bausch and Lomb School of Optometry, specializes in education, research, patient care and human resource capacity building in optometry.

“Dr Brien Holden spent his entire career inspiring scientists and healthcare professionals around the world with his dream of ‘vision for everyone, everywhere’. It is an honour for us to have an institute named after him,” said, Dr G N Rao, the founder and chair of LVPEI.

Professor Kovin Naidoo, CEO of Brien Holden Vision Institute, said: “Prof Brien and Dr. Rao took their early friendship and developed it into a mutually beneficial partnership for LV Prasad Eye Institute and the Brien Holden Vision Institute that has spawned research, education and public health collaborations that have benefitted people and eye care practitioners in India and other parts of the world,” he added. “Brien believed passionately in the potential of India and loved the country and its people and his contributions to eye care have been memorialised in this naming.”

Prof Brien Holden and the Brien Holden Vision Institute have been collaborating with LVPEI for many years in the area of vision correction research, contact lens education, eye care delivery and optometry development for many years. Both organisations were participants in a series of Cooperative Research Centres between 1991 and 2015 and were instrumental in the founding of the International Centre for Eyecare Education (later becoming the Brien Holden Vision Institute) and co-founded the India Vision Institute.

Date: 20 September 2017
From: Dr Ramesh S Ve (ramesh.sve@manipal.edu)
Subject: Opening for full time PhD scholars at Manipal University

The Department of Optometry, Manipal University has opening for full time PhD scholars under Dr TMA Pai scholarship. The Last date for applying is 25th Sep. 2017.
The field of research is 11/01- structural and functional changes in glaucoma.

For more details on eligibility, selection process, stipend & fees application form kindly refer to Manipal University website under Allied Health Sciences Or click here <https://manipal.edu/mu/admission/indian-students/Phddetails.html>

Date: 10, August 2017
From: Sandhya Shekar (sandhya.shekar@indiavisioninstitute.org)
Subject: Anti-VEGF Eyedrops Could Treat Age-related Macular Degeneration- RELIAWIRE

A type of eye drop which could potentially revolutionize the treatment of one of the leading causes of blindness has been developed by scientists at the University of Birmingham. The results of the research could spell the end of painful injections directly into the eye to treat the increasingly common eye disorder known as age-related macular degeneration (AMD) - a painless condition which causes people to gradually lose their central vision, usually in both eyes. Anti-vascular endothelial growth factor therapy, also known as anti-VEGF therapy or anti-VEGF medication, is the use of medications that block vascular endothelial growth factor. This is done in the treatment of certain cancers and in age-related macular degeneration.

Cell-penetrating Peptide

The researchers have invented a method of delivering the injected drug as an eye drop instead, and their laboratory research has obtained the same outcomes as the injected drug. The drop uses a cell-penetrating peptide (CPP) to deliver the drug to the relevant part of the eye within minutes.

Dr de Cogan said: "The CPP-drug has the potential to have a significant impact on the treatment of AMD by revolutionising drug-delivery options. Efficacious self-administered drug application by eye drop would lead to a significant reduction in adverse outcomes and health care costs compared with current treatments. The CPP-plus drug complex also has potential application to other chronic ocular diseases that require drug delivery to the posterior chamber of the eye. We believe this is going to be very important in terms of empowering of patients and reducing the cost of treatment to the NHS."

For complete article please click here <http://iovs.arvojournals.org/article.aspx?articleid=2627719>

Date: 17, August 2017
From: Revanth Reddy (revanth.kumar@indiavisioninstitute.org)
Subject: What People with Bionic Eyes See? – The Conversation

Visual prostheses, or "bionic eyes", promise to provide artificial vision to visually impaired people who could previously see. The devices consist of micro-electrodes surgically placed in or near one eye, along the optic nerve (which transmits impulses from the eye to the brain), or in the brain.

The micro-electrodes stimulate the parts of the visual system still functional in someone who has lost their sight. They do so by using tiny electrical pulses similar to those used in a bionic ear

or cochlear implant. Electrical stimulation of the surviving neurons leads the person to perceive small spots of light called phosphenes. A phosphene is a phenomenon of experiencing seeing light without light actually entering the eye – like the colors you may see when you close your eyes.

These phosphenes in someone with a bionic eye can be used to map out the visual scene. So the vision provided by a bionic eye is not like natural sight. It is a series of flashing spots and shapes the person uses to interpret their environment through training – somewhat like a flashing mosaic.

Currently, the vision provided by a bionic eye is very basic and can be used for tasks such as identifying the location of an object, detecting a person, or finding a doorway. Researchers hope future bionic eye devices will provide higher resolution vision, but this has inherent challenges.

What Recipients Actually See

The activity on the electrodes is seen as a series of bright flashes rather than as a steady perception. These bursts of light arranged to represent the basic shape like the height and width and approximate location of an object in front of the camera. Recipients need to use these irregular flashes to interpret the camera image. The field of view is small of about 30 degrees wide or one hand span at arm’s length so recipients need to have a good memory to put the whole image together.

Who Gets A Bionic Eye?

The type of bionic eye that may be an option for patients is dependent on the cause of their vision loss. Retinal bionic eye implants are placed into the eyeball itself, and are only suitable for people who have lost their vision inherited types of retinal degeneration known as retinitis pigmentosa and age-related macular degeneration.

The quality of vision with a retinal implant heavily depends on the residual eye health of the patient and the ability to interpret the created phosphenes. The implanted electrodes aim to replicate the function of missing photoreceptors. But there must be viable surviving neurons for the electrodes to interact with.

Another complicating factor is that there are many neuron types in the retina but the electrodes are too large to selectively target individual types. For this reason, bionic eyes cannot replicate the sense of color. In fact, artificial vision is very different from normal vision and takes a lot of getting used to.

For more details please visit <https://theconversation.com/artificial-vision-what-people-with-bionic-eyes-see-79758>

Date: 22, August 2017

From: M.Chandrashekher (m.chandrashekher@indiavisioninstitute.org)

Subject: Amazing! An Eye test could detect early signs of alzheimer’s – Optometry Today

Using an eye scan to detect plaque build-up on the retina holds potential as a way of screening patients for the first signs of Alzheimer's disease.

In a study, published in the Journal of Clinical Investigation Insight, Cedars-Sinai neuroscience researchers found that the level of amyloid plaque deposits at the back of the eye correlated with plaque build-up in the brain.

The test is inexpensive and non-invasive, allowing doctors to trace the progression of the disease over time. The study authors conclude that this approach could lead to a practical method for the large-scale diagnosis and monitoring of Alzheimer's disease.

Researchers were able to pinpoint where in the retina plaques are most likely to form – giving them an idea of where to look for signs of the disease in the future.

The results of the study confirm the findings of the first eye scan study conducted in 2010, which revealed that plaque can be detected in the brain 20 to 30 years before Alzheimer's disease becomes symptomatic.

Full text article available here

https://insight.jci.org/articles/view/93621?utm_source=cs%20blog&utm_campaign=cs%20blog%20post&utm_medium=referral&utm_content=study-eyes-window-early-alzheimers-detection

Date: 02 September 2017

From: Jissa James (jissa.james" <jissa.james@indiavisioninstitute.org)

Subject: HOW PETS SEE THE WORLD- a new Infographic reveals how animals perceive their surroundings

Ever wondered what your dog sees as he strolls through the park? Or what your cat is transfixed by as you watch television?

The infographic outlines the visual quirks of a range of animals, from horses and dogs to geckos and snakes. It outlines their secret strengths as well as their achilles' heels.

The infographic shows that while horses have great peripheral vision with their eyes on the side of their head, they have a blind spot in front of their nose. Cats have an inner eyelid to provide extra protection and dogs have broad peripheral vision. Both dogs and cats perceive colour in browns, blues and yellows. Birds are able to see a much broader spectrum of colours than humans, and can also see ultraviolet light. Sharks, on the other hand, cannot see any colour at all.

Click here to see more on [How Animals See the World](#) infographic.

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All contributions need to be in word format (not more than two to three paragraphs including a title).

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