

Optometry DisList

Instance 2015: 17
Tuesday, 27 October 2015

Today's subjects

- Retina Offers Insights into Schizophrenia Pathophysiology
- Community Eye Health course at LVPEI
- Eye drop treatment in development for AMD
- EnChroma's Accidental Spectacles Find Niche Among the Colorblind
- Clinical Optometrist (Job)

Date: Monday, 12 October 2015
From: Sheethal (sheethal.pai.shenoy@gmail.com)
Subject: **Retina Offers Insights into Schizophrenia Pathophysiology**

A meta-analysis, published in Schizophrenia Research Cognition, suggests that retinal changes may precede the behavioural onset of schizophrenia.

Researchers from Rutgers University and Mount Sinai's New York Eye and Ear Infirmary reviewed the current evidence on visual disturbances in schizophrenia and concluded that if further research links certain retinal changes to the progression of schizophrenia, doctors could better diagnose and manage schizophrenia in high-risk patients who have not yet presented with the behavioural component of the disease. For example, reduced bwave amplitude in electroretinography (ERG) readings was found in high-risk paediatric patients who did not display behavioural symptoms of schizophrenia.

"Measurement of retinal changes may help doctors, in the future, adjust schizophrenia treatment for each patient," study co-author Richard B. Rosen, MD, says in a press release.

Another important retinal feature noted in the meta-study was retinal nerve fibre layer (RNFL) thinning, which may have diagnostic implications for ODs. "Some, but not all, studies indicate thinning of the retinal nerve fibre layer in schizophrenia. Evidence from other neuropsychiatric populations suggests that thinning parallels loss of brain volume, cognitive decline and illness progression in these conditions," says Steven Silverstein, PhD, the study's first author. "It is not yet known the extent to which retinal nerve fibre layer thinning in schizophrenia parallels any such changes; however, if it is later found that RNFL thinning does predict these changes, this would have several implications," Dr Silverstein says. First, he recommends an OCT exam. Second, if the exam indicates RNFL thinning, order a more expensive and time-consuming structural brain scan, as well as neuropsychological testing and functional assessment.

"If these tests indicate brain volume loss, cognitive decline or both, this would suggest a need for cognition-enhancing medication and for cognitive remediation, which has been shown to improve cognition and slow progressive grey matter loss in younger schizophrenia patients," Dr. Silverstein says.

For full article, please visit: <http://www.reviewofoptometry.com/content/c/57004/>

Original Article Source:

<http://www.sciencedirect.com/science/article/pii/S2215001315000086>

Date: Thursday, 15 October 2015

From: Srinivas Marmamula (sriptom@lvpei.org)

Subject: **Community Eye Health course at LVPEI**

One of the major problems in prevention, accurate diagnosis and treatment of eye diseases is the lack of trained human resources. Trained human resource is a key to a successful blindness prevention program. To address this issue, the training of eye care professionals at all levels has been one of core focus areas of L V Prasad Eye Institute (LVPEI) since its inception.

The institute offers courses in Community Eye Health to train human resources in Community Eye Care. After successfully running the "Diploma in Community Eye Health (DCEH)" program for 15 consecutive years, LVPEI is now poised to offer a one month Certificate course in Community Eye Health. This program is scheduled from 16th November (Monday) to 12th December (Saturday) 2015. The classes will be conducted at the LVPEI Gullapalli Pratibha Rao campus, Hyderabad, India. This course is a shorter version of DCEH - specially designed for those who cannot afford to dedicate six months for the DCEH program.

The regular batch of the six months DCEH program is scheduled to start in the first week January 2016. This is a comprehensive program, with a right blend of theoretical knowledge and practical training and field visits.

Practicing Eye Care Managers / Administrators in hospitals, Ophthalmologists, Optometrists working as teaching faculty in optometry schools and other professionals who are interested in Community Eye Health can reap the benefits of these courses.

For more information, please visit: <http://icare.lvpei.org/training-programs.php>

Date: Monday, 19 October 2015

From: Deepika Reddy (deepikak.opt@gmail.com)

Subject: **Eye drop treatment in development for AMD**

A new eye drop treatment for retinal conditions being developed by researchers in the US could reduce the need for intravitreal eye injections.

Early stage experiments have shown the treatment, called Vasotide, to be successful in treating animal models of wet age-related macular degeneration (AMD) and retinopathy of prematurity (ROP).

Both AMD and ROP result in the growth of abnormal, leaky blood vessels in the retina. Current treatments target the VEGF receptor, which act to block the binding of a growth factor, so reducing proliferation of the blood vessels. However, current anti-VEGF treatments are injected into the eye which can cause discomfort for patients.

The team, based at Harvard University's Beth Israel Deaconess Medical Center (BIDMC) and the University of New Mexico, in the US, tested Vasotide in both mouse and monkey models of disease.

The drug, which was administered as eye drops and as a subcutaneous injection, acts by blocking two receptors, VEGF-1 and NRP-1. Its small size means the molecule is able to overcome issues which hampered previous unsuccessful candidates for topical retina treatments.

Dr Richard L. Sidman, an investigator in the Department of Neurology at BIDMC and Bullard Professor of Neuropathology (Neuroscience), Emeritus, at Harvard Medical School, told OT that the animal models of AMD and ROP provide "a high level of confidence in the medical relevance" and the group anticipates the findings could be replicated in patients. "Of course, it will require carefully designed translational clinical trials," he added.

AMP Pharmaceuticals, which holds the licence for Vasotide, is reportedly trying to secure funding for human trials for the drug. The researchers confirmed to OT that trials will start "as soon as logistically possible."

Professor Sidman added: "If successful, we trust that various Vasotide formulations, consisting of either eye drops or self-dissolving contact lenses, has the potential to replace repetitive intraocular injections, which are expensive, cumbersome, and unpleasant for patients."

For full article, please visit: <http://www.optometry.co.uk/news-and-features/news/?article=7820>

Original Article Source: <http://stm.sciencemag.org/content/7/309/309ra165>

Date: Tuesday, 20 October 2015

From: Mounika Deepa (mounikav30@gmail.com)

Subject: **EnChroma's Accidental Spectacles Find Niche among the Colorblind**

The eyeglass lenses that Don McPherson invented were meant for surgeons. But through serendipity he found an entirely different use for them: as a possible treatment for colorblindness.

Mr. McPherson is a glass scientist and an avid Ultimate Frisbee player. He discovered that the lenses he had invented, which protect surgeons' eyes from lasers and help them differentiate human tissue, caused the world at large to look candy-colored — including the Frisbee field. Mr. McPherson went on to study colorblindness, fine-tune the lens technology and start a company called EnChroma that now sells glasses for people who are colorblind.

Colorblindness occurs when the cells in the retina that enable the brain to perceive color are abnormal. The most common color vision deficiency affects the red or green cones, making it difficult to distinguish those colors; blue-cone abnormalities also exist. Total colorblindness, in which a person sees only black and white, is very rare.

But according to [Jay Neitz](#), a vision scientist an ophthalmology professor at the University of Washington, these glasses and the others before them don't rely on solid science. "People who cannot see red and green are easily victimized, just like many other examples of people with incurable conditions," Dr. Neitz wrote in an email, adding that the glasses "cannot 'cure' colorblindness or do much to aid colorblind people except under some special circumstances."

Mr. Dykes countered that the glasses were not meant to be a cure, in the same way that reading glasses don't cure farsightedness. He also acknowledged that the glasses don't work for all types of colorblindness. "It works in some cases and not others," he said. "It's not a magical cure or a cheat."

For full article, please visit: <http://www.nytimes.com/2015/08/16/business/enchromas-accidental-spectacles-find-niche-among-the-colorblind.html? r=2>

Date: Tuesday 20, October 2015

From: Rashmi. B. (rashmireddy1990@gmail.com)

Subject: **Clinical Optometrist (Job)**

- Hospital: Centre for Sight Eye Hospital
- Location: Hyderabad, Telangana
- Designation - Clinical Optometrist
- Vacancy - 02 (Oculoplasty & Comprehensive)

- Qualification - B.Opt/M.optom (Clinical Internship 1 year Mandatory)
- Experience - Minimum 1 year
- Skills required for Oculoplasty - Candidate should be able to perform all relevant tests and should be able to perform case specific work-up

For more information please contact: education@centreforsight.net

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