

Optometry DistList

Instance 2017: 47

Thursday, 15 June 2017

Today's subjects

- Oxford University Student Develops World-First Soft Tissue Retina
- Intense Pulsed Light Bridges Eye Care And Aesthetics
- 5 Free Computer Software for Color Blindness
- Myopia Progression Increases Dramatically at the Onset of School Age
- Dr Agarwal's Research Fellowship Program
- ASCO Fellowship Program

Date: 22 May, 2017

From: M. Shiva Ram (shivaram.ram180@gmail.com)

Subject: **Oxford University Student Develops World-First Soft Tissue Retina**

A postgraduate student has developed a soft tissue retina using hydrogels and biological cell membrane proteins. Oxford University researcher, Vanessa Restrepo-Schild, 24, developed a double-layered retina that uses biological, synthetic tissues in contrast to the rigid materials that are usually used in artificial retinal research.

The retina is designed like a camera, using biological cell membrane proteins that work like pixels to detect and react to light, creating a monochrome image.

Ms Restrepo-Schild told *OT* that she hoped her research was the first step in a journey towards building technology that was soft and biodegradable.

"The synthetic material can generate electrical signals, which stimulate neurons at the back of our eye just like the original retina," she explained.

A study detailing the technology, published in *Scientific Reports* details how an implant using natural materials is less likely to be invasive than a mechanical device.

"The human eye is incredibly sensitive, which is why foreign bodies like metal retinal implants can be so damaging, leading to inflammation or scarring," Ms Restrepo-Schild highlighted.

The Oxford University scholar has filed for a patent for the technology and will lead future research to expand the retina's function to recognize different colors.

For the complete article, please visit: <https://www.aop.org.uk/ot/science-and-vision/research/2017/05/08/oxford-university-student-develops-world-first-soft-tissue-retina>

Date: 6 June, 2017

From: B. Suresh (tsureshbalakrishnan@gmail.com)

Subject: **Intense Pulsed Light Bridges Eye Care and Aesthetics**

The Intense Pulse Light (IPL) has been used in dermatology for decades to treat a variety of skin problems, including facial rosacea.

As commonly occurs with procedures and medicines, anecdotal changes often accompany the original goal. Take the lash growth seen with the use of bimatoprost (Latisse, Lumigan; Allergan) as an example of a sequela that is fortuitous for the patient. Because studies have concluded that 80 to 90 percent of patients with facial rosacea also have ocular rosacea, it should come as no surprise that patients experienced an improvement in symptoms of dry eye after IPL treatment for their facial rosacea. It appears that breaking up the inflammatory

cycle may be utilized for both rosacea as well as dry eye. The mechanism of action for IPL is to absorb light filtered to certain wavelengths into selective target tissues. IPL shares similarities with laser treatments in that it uses light to heat and destroy its targets—unlike lasers that use a single wavelength (color) of light which typically matches only one chromophore, and hence only one condition. IPL uses a broad spectrum which when used with filters allows it to convert light into heat. This conversion can then be used against several conditions.

IPL therapy is considered a non-ablative resurfacing technique, meaning it targets the lower layers of skin (dermis) without affecting the top layers of skin (epidermis). The results are not as dramatic as ablative resurfacing in which both the dermis and epidermis are injured to produce a more noticeable overall outcome. In the treatment of inflammation, the laser targets oxyhemoglobin, which is present in the walls of telangiectatic blood vessels, to induce thrombosis. These superficial leaky blood vessels release inflammatory mediators that are often the impetus for inflammatory-related conditions, including dry eye.

For the complete article, please visit:

<http://optometrytimes.modernmedicine.com/optometrytimes/news/intense-pulsed-light-bridges-eye-care-and-aesthetics?page=0,0> *****

Date: 27 May, 2017

From: Kalaivani Sriram (Ka.sriram@gmail.com)

Subject: **5 Free Computer Software for Color Blindness**

Color blindness, also known as color vision deficiency, is the inability to see color distinguish colors. It affects a large number of individuals across the world, with approximately 8% of all Caucasian males and 0.5% of females experiencing problems with some forms of color deficiency. For individuals with color blindness, the text and images of a website may be fuzzy and unrecognizable. Fortunately, there are numerous assistive software products for color blind people using Windows computer. Five of them have been discussed below.

Visolve

Visolve by Ryobi Systems Solutions is a software that uses filters to allow better differentiation between colors by making colors lighter and darker or increasing the saturation.

Daltap

Daltap is assistive software by Glenn Heylen that comes with many useful features. Its naming feature gives the name of the color at the tip of the cursor while also enabling the user to enlarge or zoom in the area around the mouse.

ColorBlindExt

ColorBlindExt is a Firefox add-on that helps color blind people while browsing the web, by processing images and text on the page according to the type of color blindness the user suffers from.

eyePilot

EyePilot is software that comes with several different types of filters. Along with the usual flashing and name filters that flash a selected color and show the name of the color that the mouse points at respectively, eyePilot has a gray filter.

WhatColor

WhatColor is a freeware that enables users to identify colors by selecting pixels. The program magnifies an area around the cursor from which the user can select some pixels to identify. The program will then tell the user the color of the selected pixel is, along with providing an RGB value for it.

For the complete article, please visit: <http://www.thewindowsclub.com/computer-software-color-blindness>

Date: 09 June, 2017

From: Brien Holden Vision Institute (info@brienholdenvision.org)

Subject: **Myopia Progression Increases Dramatically at the Onset of School Age**

China is undergoing rapid transformation with increasing urbanization, upward social mobility with increasing use of technology. This social change has brought pressure to perform well academically and seen a growing popularity and usage of electronic devices, such as tablets and mobile phones. As with other parts of South East Asia, the prevalence of myopia in China exponentially increases with age, with studies reporting rates of 60% among 12-year-olds, reaching 80% in 16 years old and surpassing 90% in university students.

Numerous studies have identified school age as a point when the progression of myopia increases dramatically in children. Research conducted at schools in the Chinese city of Shanghai recently has added to this evidence. The Shanghai Children Eye Study revealed the rate of myopia increased dramatically from around 5% in 6 year-olds to 52% in 10 year-old children (an increase of approximately 10% per year).

While further research is necessary to understand the key mechanisms involved in this acceleration in progression, the authors suggest that the risk of myopia may be even greater in 'high level' schools in China. Observing that children at these schools 'experience greater homework demands and pressure from teachers, parents, and peers to study,' they highlight the conclusions of several studies that 'educational exposure' is an 'important environmental risk factor for myopia.' The study was published in 'Investigative Ophthalmology & Visual Science' in November 2016.

The open access article can be viewed here: <http://iovs.arvojournals.org/article.aspx?articleid=2585947>

Date: 30 May, 2017

From: Maheswari Srinivasan (maheswari.srinivasan@dragarwal.com)

Subject: **Dr Agarwal's Research Fellowship Program**

Eligibility

1. Optometrists and Freshers.
2. 6 months commitment
3. Intellectual curiosity
4. Passionate about Research, Innovation, Product Development and Clinical Trials

Content of the Fellowship

1. Research Methodology,
2. Innovation and Product Development
3. Testing and Validating the Device
4. Clinical Trials.

Duration: 6 months (1st July to 31st Dec 2017)

Selection procedure

1. Interview and Online entrance exam
2. Number of seats: 5 only

Course Facilitators:

1. Dr Dhivya Ashok kumar, a senior consultant and Research Head of Dr Agarwals eye hospitals. She has 10 years of experience in research. She has published 80 papers in indexed journals.
2. Mrs. Maheswari Srinivasan M. Optom, F.I.A.C.L.E, F.A.S.C.O
3. Mr. Vamsi Mohan – a leading mechatronics engineer from IIT Madras.
4. Mr. Ravi Theja- – a leading electronics engineer from IIT Madras.

For application form and procedure, please write to maheswari.srinivasan@dragarwal.com or call (+91) 98416 – 61134

Date: 07 June, 2017
From: Uday Addepalli (uday@lvpei.org)
Subject: **ASCO Fellowship Program**

Greetings from Association of Schools and Colleges of Optometry (ASCO)

We wish to announce that ASCO has launched its revamped fellowship program starting from June 2017. For the very first time a blended learning approach has been introduced to offer quality fellowship in three specialty subjects namely – Contact lens, Vision Therapy and Clinical Optometry.

Salient features of the 1 year fellowship program:

1. Candidate gets to choose his/her mentor in the chosen specialty from the list of mentors.
2. Hands on training and didactic lectures during two contact program.
3. Exclusive access to the ASCO web portal with presentations on various specialty subjects of optometry from across the globe.
4. Continuous evaluation of the candidate by the mentor
5. Fellowship conferred upon successful completion of assignments, written exam and viva.

To know more about fellowship, please write to Ms Anitha Arvind at anitha2001arvind@gmail.com or call at (+91) 7869387438

India Vision Institute
Plot No 212, No 45, Palkalai Nagar,
7th Link Road, Palavakkam,
Chennai - 600041, TN, India
Tel. No. : +91 - 44 – 24515353

Email: ivi@indiavisioninstitute.org
Web: www.indiavisioninstitute.org

Note:

To subscribe to OptDistList, please send an email to info@indiavisioninstitute.org with the subject line titled 'SUBSCRIBE'
To unsubscribe from OptDistList, please send an email to info@indiavisioninstitute.org with the subject line titled 'UNSUBSCRIBE'.

Administrivia:

The OptDistList is a service provided by the India Vision Institute (IVI)
DistList postings are for informational purposes only and do not imply endorsement by IVI

Instructions for DistList postings:

IVI invites contributions including latest updates and new developments in Optometry, innovative ideas, optometry job vacancies, conferences, links to interesting articles and other latest happenings. All contributions need to be in word format (not more than two to three paragraphs including a title). Send in your contributions with your name and contact details to info@indiavisioninstitute.org

DistList Archives:

All instances of the DistList are available (both for browsing by whole items and searching for individual messages):
<http://www.indiavisioninstitute.org/optdistlist.php>
