

EYECURE.

NEWS FROM THE QUEENSLAND EYE INSTITUTE FOUNDATION
ISSUE 15 | SPRING 2021

WELCOME TO THE SPRING ISSUE OF EYECURE

Included in this issue is information about Last Seen which focuses on both raising awareness and an appreciation of sight as well as the Australian artists, composers and musicians who tell their remarkable stories.

You will also read about 'Healthy Eating for Healthy Eyes', and about what foods are good for your eyes. We provide an update on our fundraising drive 'Help Us Help Max' and other children like him. Finally, we talk with two of our Ophthalmologists and our Senior Research Officer about their clinical and research interests.

Thank you to all our patients and supporters for your ongoing support and especially your continued co-operation during these challenging times. Keeping everyone safe during this time of COVID is our priority.



Best wishes,
Mark Radford, CEO.



MACULAR DEGENERATION

Age-related macular degeneration (AMD) is the leading cause of blindness in people over 50 years old. We spoke to Associate Professor Abhishek Sharma about the different types of macular degeneration as well as treatment.

▶ SEE PAGE 4 & 5

HELP US HELP MAX

Since May our fundraising drive has been focused on 'Help Us Help Max' and other children like him in order to raise funds for new visual electrophysiological testing equipment and hopefully halve the current waiting time.

▶ SEE PAGE 8



NATIONAL SCIENCE WEEK

With a focus on science and technology during National Science Week in August, we sat down with Dr Shuko Suzuki, Senior Research Officer at Queensland Eye Institute (QEI) to find out more about her work as a scientist and the importance of research.

Becoming a scientist seemed to be the natural path for Shuko as she had an interest in science and enjoyed laboratory work. Then while at university, inspired by her supervisors in the Polymer Chemistry Group at QUT and UQ, she developed a greater interest in biomaterials and wanted to continue working in this field. Shuko is very intrigued by the complexity of the eye and eye diseases. She enjoys each step of research, from identifying and studying a problem, to planning, and then conducting laboratory experiments and analysing the resulting data.

A career as a scientist

When asked what advice Shuko would say to children and teenagers today thinking about becoming a scientist, she says, "Treasure your favourites because we become great at things we like. Take opportunities for research trips and laboratory visits to experience the real science world."

Potential sight saving research

Shuko is involved in a number of research projects at QEI. Working alongside QEI Chief Scientist Prof. Traian Chirila and Research Assistant Dr Onur Sakiragaoglu they are looking at the benefits of developing silk protein-based biomaterials (from silk cocoons) for ocular tissue repair (cornea and retina). Restoring sight for those with injuries and degenerative eye diseases (age-related macular degeneration, glaucoma and diabetic retinopathy) could one day be a possibility using silk proteins.

What are your ambitions?

Shuko is modest about the team's achievements and is equally humble when it comes to her own ambitions. When asked about her, she replied with "I hope that our development will one day help patients and make them smile."

With QEI's aim to save sight, we hope that with more research into silk protein-based biomaterials, we can do just this.



Dr Shuko Suzuki, Senior Research Officer (left) and Silk Cocoons (above)

LAST SEEN 2022

Last Seen 2022 will partner ten vision impaired Australians from all walks of life and ten Australian artists to depict their last, dearly-held visual memories on canvas. These include a decorated Afghan War veteran, a Paralympian and gold medallist, a Webby Award winning computer programmer and a professional jazz pianist. These ten original artworks and the stories behind each of them will be the inspiration for ten different pieces of music, created by ten Australian established and emerging composers.



This will culminate in not only a very special art exhibition to be hung in a leading Brisbane gallery, but a stirring gala concert staged in an iconic Brisbane concert hall. This will feature the ten visual artists, ten vision impaired participants, ten composers, an 80 piece orchestra and a massed choir debuting ten original,

inspirational musical works. Last Seen will be an inclusive and accessible event with ten soundscapes and ten tactile pieces of art provided for each painting.

We are thrilled to launch Last Seen in Brisbane supporting local artists and composers while bringing art and a live orchestra

together to retell these stories and showcase such unique and exceptional talent.

Although this is an event designed to raise awareness and appreciation of sight, it is also an opportunity for Australian artists, composers and musicians to tell a story, to share their craft and make a difference that counts.

DISCUSSING MACULAR DEGENERATION WITH ASSOCIATE PROFESSOR ABHISHEK SHARMA

Associate Professor Abhishek Sharma is a specialist in both medical and surgical retinal eye conditions at Queensland Eye Institute (QEI). His specialties include treatment for macular degeneration, diabetes, retinal detachments and other conditions affecting the back part of the eye.

Focused on the retina

When asked why he wanted to focus on retina related health, Associate Professor Abhishek Sharma explained, "I think the retina is an amazing tissue. The retina is the part of the eye that converts light to electrical signals. These signals go to the brain through the nerves and allow you to see. It's where sight begins. To be able to treat the retina, either with medications or surgery, is a marvel in medicine. Through the retina, you can often see problems that affect the rest of the body, such as diabetes or infections, you can directly see the effect of many diseases."

The macula, at the centre of the retina is responsible for giving a person the sharp and detailed vision needed for reading, watching

TV and driving. Unfortunately, when the macula degenerates and the cells break down, they leave waste products in the eye which start to affect a person's vision.

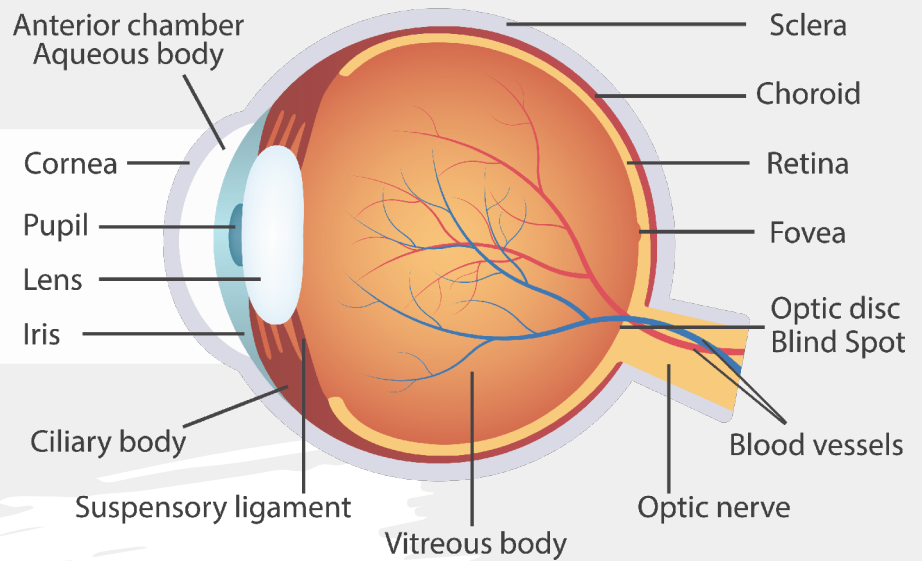
Age-related macular degeneration (AMD) is the most common type of macular degeneration. Another form of macular degeneration which affects children and young adults is called Stargardt disease or juvenile macular degeneration.

How does macular degeneration affect your vision?

"The early signs are distorted letters and lines. Macular degeneration makes the fine vision less clear and less well defined. If it is dry macular degeneration, it can slowly progress. However if it is wet it can progress much more quickly so early treatment, before it scars up, can stop the deterioration and even improve it in some cases. It is important to have your eyes checked if you notice any changes in your vision."



The retina is the yellow layer lining the inside of the eye ball



Wet and dry macular degeneration & treatment

There are two main types of macular degeneration, wet and dry.

“Dry macular generation can become wet over time. Macular degeneration (wet) was the leading cause of blindness in western countries 10-15 years ago before treatment. This involves injections in the eye in order to control the leaking blood vessels at the back of the eye. Treatment is initially monthly then is extended out gradually once the macula is stabilized, unless the vision becomes so poor there is no benefit. At QEI, we are also taking part in a multicentre and multinational trial where implants are put into the eye that will release the medication for up to 8-9 months instead of the frequent injections.”

For dry macular degeneration, Associate Professor Abhishek Sharma explains, “Treatment consists of monitoring with an Amsler grid as well as looking after your lifestyle. This includes a healthy diet, not smoking, possibly adding vitamin pills for the eye specifically and talking

to your optometrist or eye doctor. Unfortunately there is currently no specific proven treatment for dry macular degeneration. However, we hope that in the future with the multicentre trials that QEI is currently involved in, we can offer more comprehensive treatment.”

Those at risk of macular degeneration

There is no specific genetic link to macular degeneration that has been detected. However, the biggest risks are age and smoking, the latter being a much more serious factor.

Being proactive with eye health

The key to avoiding macular degeneration is to be proactive. Annual check-ups at the optometrist after 50 years old and a healthy diet with regular exercise are vital to keeping your eyes healthy. As well as checking the health of the macula, this appointment will look for diabetes, cataracts and review your current prescription for glasses.

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HEALTHY EATING FOR HEALTHY EYES

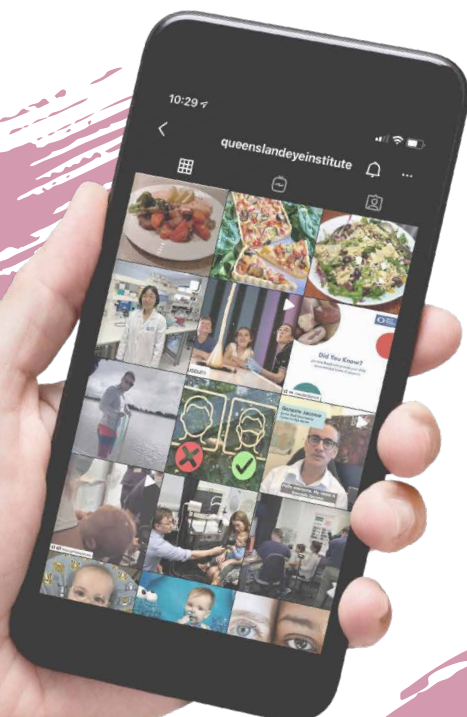
Spring is a time when many of us think about eating healthy food and getting back into shape, ready for summer. At the Queensland Eye Institute, spring is a time to focus on 'Healthy Eating for Healthy Eyes'. We may be well-versed in knowing what to eat to keep our cholesterol down but we may be less aware on what to eat to keep our eyes healthy. Eating the right foods and those high in antioxidants can help slow down or prevent some types of eye disease:

- Macular degeneration
- Diabetes
- Retinitis pigmentosa
- Stargardt disease
- Cone rod dystrophies
- Retinal vein occlusion
- Dry eye
- Cataracts

Many of our staff have been busy in their kitchens making meals which include some of the below food groups, summarised on the enclosed magnet.

- Nuts & Seeds: walnuts, almonds, hazelnuts, Brazil nuts, chia seeds, sunflower seeds (Vitamin E & Selenium)
- Brightly-coloured fruit: citrus fruit, berries, kiwi fruit (Vitamin C)

- Brightly-coloured vegetables: yellow capsicums, pumpkins, tomatoes (Vitamin C)
- Leafy greens: spinach, kale, silver beet, broccoli, peas (Lutein and Zeaxanthin)
- Cold water fish: trout, sardines, salmon (Omega-3)



SHARE YOUR RECIPES ON SOCIAL MEDIA!

We hope that you too enjoy making meals focused on 'Healthy Eating for Healthy Eyes.'

We would love to see your recipes on social media. Tag us in any of your posts on Facebook, LinkedIn, Twitter or Instagram so we can spread the important message of 'Healthy Eating for Healthy Eyes' and your recipes.

FIVE MINUTES WITH ASSOCIATE PROFESSOR ANTHONY KWAN DURING LOCKDOWN



Julia and Associate Professor Anthony Kwan (left) and Anthony Kwan Fencing (right)

Associate Professor Anthony Kwan has been a Consultant Ophthalmologist, Retinal and Macular Specialist, and Vitreoretinal Surgeon at Queensland Eye Institute (QEI) since 2007. We caught up with him while he was quarantining at home in early August to find out more about his life achievements, his focus in ophthalmology and his sporting interests.

What inspired you to become a retina specialist?

"I like delicate and meticulous surgery, and retinal operations are arguably the most intricate of all the ophthalmic procedures."

Does your family have an interest in ophthalmology?

"I am very fortunate to have a wife who is a general practitioner, my older son is studying medicine at university and a younger son at high school who is also interested in medicine. So they have some interest in what I do."

What areas of research are of interest to you and why?

"My original area of research is laboratory model of retinal transplantation for the treatment of macular degeneration/dystrophy. My current interest is in clinical trials for both dry and wet macular degeneration."

What do you see as your top career and life achievements?

"In terms of career achievements, my success in experimental retinal transplantation during my research time at the Institute of Ophthalmology, University College London, is one. The other is my contribution in establishing the Queensland Eye Institute into a centre of excellence in clinical care and research. Our Institute is now recognised nationally and internationally."

"In terms of my life 'achievements' – together with my wife, Julia, we have brought up two conscientious and hard-working young men; one is studying

medicine after being awarded the Chancellor Scholarship and the other may pursue the same interest. I cannot be more proud of them in what they have achieved so far."

What exercise do you like doing outside of work?

"I used to be a regular fencer, but I have had to give that up with my ageing knees. I am now into gym workouts and do running regularly, hence the charity run in the Bridge to Brisbane event."

Associate Professor Anthony Kwan is running in the Bridge to



Brisbane in November and has since raised over \$6,500 for retinal research and a much needed electrodiagnostic machine.

To donate, please visit bridgetobrisbane.gofundraise.com.au/page/AnthonyKwan

Where would you like to visit when the borders open?

"Anywhere that I can meet up with the rest of my family! I have a brother in London, UK, and another brother in Vancouver, Canada. We have not seen each other for a long while, so we will organize a big family reunion!"

'HELP US HELP MAX' - THANK YOU

To date we have raised over \$70,000 for new equipment to conduct electrodiagnostic tests.

Thank you to everyone for your donations. We will be upgrading some of the equipment over the next two months.

Our fundraising drive, 'Help Us Help Max' will continue with the Bridge to Brisbane which has now been postponed until the 7th of November. With some of the QEI team running and walking the Bridge to Brisbane, we have now raised over \$7,300 for this event.

Thank you for supporting us and to Help Us Help Max and other children like him.



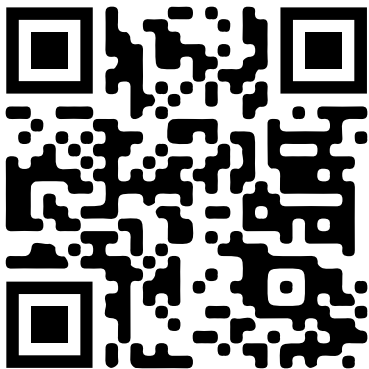
Your donation is gratefully appreciated.

Your donation today will help the QEI Foundation save sight through its research, education and clinical care.

Help us save money by donating online.

Visit www.qei.org.au

Or scan the QR code to donate through the website or call **07 3239 5050**.



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