NEWS FROM THE QLD EYE INSTITUTE FOUNDATION

ISSUE 19 | SPRING 2023

eyecure.

WELCOME TO THE SPRING EDITION OF EYECURE 2023

In this issue, you will read about the funds raised from Last Seen and how we will use this to save sight. You will find out how we are giving back to regional communities and read about our latest research in Romania and the expanding team in clinical trials.

Thank you for your continued support.

We could not continue our research without you.

Mark Radford, CEO.

GIVING BACK TO REGIONAL COMMUNITIES

The Queensland sun is harsh and without sunnies (and a hat), it can lead to eye damage, especially in children whose eyes are not fully developed and who spend a long time outside in playgrounds and sporting ovals.

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Photo taken by Burnett Today

CLINICAL TRIALS

Clinical trials are important in helping to prevent, test, detect, treat or manage a range of medical conditions.

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QUEENSLAND eye INSTITUTE FOUNDATION

GIVING BACK TO REGIONAL COMMUNITIES.

The Queensland sun is harsh and without sunnies (and a hat), it can lead to eye damage, especially in children whose eyes are not fully developed and who spend a long time outside in playgrounds and sporting ovals. Consistent sun exposure without adequate protection can lead to many eye diseases and growths on the eye including cancer and blindness.

In our 2021 Christmas Appeal, we focused on National Sunnies Day, raising awareness of eye damage from sun exposure and the importance of sunglasses particularly in summer.

With our close relationship with the Lady Bjelke-Petersen Community Hospital in Kingaroy, we wanted to use the funds raised to buy sunglasses for the local primary school students. Your generous donations not only helped us purchase a pair of sunnies for primary school children, it also funded vital medical research, as we work every day to save sight.

After delays caused by the Covid pandemic, in February 2023 we were at last able to head to the South Burnett region and give out sunglasses to primary school children at Kingaroy, Nanango, Taabinga and Cherbourg State Schools.

Thanks to your donation, we were able to give back to local communities and help save sight.

KEEPING THE EYE CANCER AT BAY FROM A YOUNG AGE. THE QUEENSLAND EYE INSTITUTE FOUNDATION DONATED HUNDREDS OF SUNGLASSES.

Photo taken by Burnett Today

LAST SEEN.

A PERFORMANCE & AN EXHIBITION TO SAVE SIGHT.

In April 2023, Last Seen brought together ten vision impaired Australians recounting their last seen or most cherished images to ten artists and ten composers. This culminated in a nine-day art exhibition of these ten paintings at Grey Street Gallery as well as an orchestral performance of eleven different premieres at Queensland Conservatorium, Griffith University.

The exhibition pioneered new ways to experience and access the arts with the use of soundscapes, tactile art, short films and a voice-activated guide accessed through smart devices. Over $210,000 was raised from the sale of the artworks, raffle and tickets.

With the funds raised, Queensland Eye Institute Foundation (QEIF) will create Queensland's first genetic eye diseases register to connect patients with clinical trials. We will also use the funds to develop our electrophysiological testing capabilities to aid the diagnosis of genetic eye diseases.

Top: Artist Michael Connolly with Participant Alan Nemeth, Composer Lisa Cheney and Seeing Eye Dog Zeus.

Bottom: Last Seen Performance at Queensland Conservatorium, Griffith University.

CLINICAL TRIALS.

Left to right: Kay O'Regan, Brett Caldwell, Mukund Pant.

Clinical trials are important to assess the safety and effectiveness of new medications, devices or imaging systems. Volunteers participate in trials to collect information about the effectiveness of the investigational product. During a clinical trial, participants can receive specific interventions this may include medical products (drugs or devices); procedures; or instructions to change their behaviour (such as diet). To provide useful data, trials compare the investigational products with either the existing best treatment or placebo (no treatment).

Conducting clinical trials at Queensland Eye Institute (QEI) provides the opportunity for patients to have early access to potential vision preserving medications. Additionally, it allows our doctors experience with novel and emerging therapies, linking Australia with the international scientific developments.

The clinical trials team are recruiting for various eye conditions throughout the year. Therefore if someone is interested in being involved in a trial it is good to regularly check our website for updates. Participation in a trial means attending

QEI for many trial visits where there can be questionnaires to fill out along with general health checks, depending on the specific trial.

The clinical trials team at Queensland Eye Institute includes Brett Caldwell, Maggie O'Hara, Kay O'Regan and Mukund Pant.

BRETT

Brett studied a Bachelor of Biomedical Science and has been working in eye health for almost 20 years. Brett has been involved in clinical trials since 2014. The ability to bring new treatments to help people, particularly when there is no existing treatment is what he enjoys about clinical trials. Also with the frequency and duration of the visits, it means he is able to develop good relationships with the patients and understand more about their current situation.

MAGGIE

Maggie has been a key part of the clinical trials team for the past two years and will be heading off overseas later this month. We wish her all the best exploring the world!

KAY

Kay studied a Bachelor in Physiology and a Masters in Research. She has been working in clinical trials within the health sector for 12 years and joined QEI last year. With vision so precious and understanding there are no treatments available for some eye conditions, Kay was motivated to work in eye care where more research is needed.

MUKUND

Mukund studied a Bachelor of Optometry then worked as a Clinical Optometrist before moving to Australia four years ago where he studied a Masters in Optometry (Research) at QUT. For the past two years, Mukund has been working as an Ophthalmic Assistant and Clinical Trial Coordinator also enjoying helping to make a difference through clinical research.

Find out more about our current clinical trials at **QEI.ORG.AU/CLINICAL-TRIALS**

CROSSLINKING OF TARSAL PLATES IN FLOPPY EYELID SYNDROME.

Researchers at Queensland Eye Institute (QEI) have achieved significant advances in the "Crosslinking of Tarsal Plates in Floppy Eyelid Syndrome" research project.

Floppy eyelid syndrome is a condition associated with obstructive sleep apnoea, obesity, keratoconus and Down syndrome. It causes the eyelids to become excessively lax and rubbery, leading to easy twisting or turning inside out, particularly during sleep. As a result, there is a deficiency in normal eyelid-ocular surface adherence and poor tear film distribution, leading to chronic inflammation and irritation. Clinicians often miss this condition due to its symptoms overlapping with other eye conditions like dry eyes and blepharitis, which include tearing, redness, sensitivity to light, and a sensation of a foreign body in the eye.

Above: Ophthalmologists Assoc Prof Florina Vultur (UMFST) and Dr Alexandra Manta (QEI). Dr Manta taught Dr Vultur to perform tarsal plate harvesting during her visit to Romania.

The exact cause of floppy eyelid syndrome remains unknown, and the disease process is not fully understood. Current evidence suggests that genetics, changes in the elastin content and structure of the tarsal plates and eyelid tendons, and overexpression of enzymes (matrix metalloproteinases) that break down elastin and collagen are the main factors. However, these theories are inconclusive, and further research is required to gain a better understanding of the condition.

Present management involves using dry eye drops, ointments during sleep, steroid drops, and surgical procedures to tighten the severely lax eyelids. However, this only treats the symptoms resulting in frequent recurrence.

There is newfound hope for an effective treatment strategy, as QEI researchers, led by Professor Traian Chirila, Chief Scientist, have achieved excellent results in the lab with a novel technique that strengthens eyelid tissues, such as the tarsal plate.

Professor Chirila explains that soaking the tarsal plate in a Vitamin B2 solution and exposing it to UV light resulted in consistent stiffening of this tissue in animal and donor human experiments.

The ground-breaking technique has been published by our team of researchers in the Ophthalmic Plastic and Reconstructive Surgery journal on two occasions and has resulted in one patent.

This research project is part of a collaboration between QEI and the G.E. Palade University of Medicine, Pharmacy, Science, and Technology (UMFST) in Târgu Mureș, Romania. Currently, in vitro work on donated human eyelids is being conducted in Romania, and human clinical trials are hoped to follow soon.

Our team of researchers led by Professor Chirila, have recently travelled to Târgu Mureș, Romania to oversee the ongoing lab experiments and offer guidance to PhD students working on this innovative collaborative project.

Dr. Alexandra Manta, a QEI researcher and oculoplastic surgeon, lends her expertise in eyelid dissection and has been training Romanian researchers in harvesting tarsal tissue for lab experiments. She will also assist with translating this laboratory technique into human trials.

This potential treatment strategy is likely to slow the progression of floppy eyelid syndrome and prevent other lax eyelid conditions.

Top: (L-R) Bebe Pacurar, Dr Alexandru Fofiu, Dr Eliza Russu, Prof Traian Chirila (QEI), Prof Mark Radford (QEI) and Dr Emil Arbanasi (UMFST) at the Centre for Medical Research at UMFST, home of QEI research laboratory in Târgu Mureș.

YOUR DONATION IS GRATEFULLY APPRECIATED.

SCAN ME!

Your donation is gratefully appreciated and 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**, call **07 3239 5050** or use the camera on your phone to hover over and scan the QR code to be able to donate through the website.

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07 3239 5050 info@qei.org.au www.qei.org.au

140 Melbourne St, Sth Brisbane Qld 4101

QUEENSLAND EYE INSTITUTE FOUNDATION

ABN 37 009 737 384