

newsletter

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Dr William Glasson celebrates 30 years at Terrace Eye Centre

I began my practice at the Terrace Eye Centre (TEC) in 1988, after having completed fellowship training in ocular oncology and oculoplastic in London.

Under the leadership of renowned ophthalmologists at TEC, I established the Queensland Ocular Oncology Service. Previously ocular melanoma patients in Queensland had to be transferred to Sydney for brachytherapy for the management of medium sized choroidal melanomas. Today, we are able to provide ocular oncology treatment locally in Queensland, Northern New South Wales and the Northern Territory. My major focus also involves ocular oncology research, particularly regarding the development of treatment paradigm for metastatic melanoma, in collaboration with the Queensland Institute of Medical Research.

I am extremely passionate about rural health, providing, over the past 30 years, outreach services to patients around rural Queensland for a broad spectrum of conditions ranging from retinopathy to

cataracts. I have strong links to the indigenous communities throughout Australia and have provided outreach services to several communities. I am currently a board member of the Institute of Urban Indigenous Health based in South East Queensland. International outreach services to patients living in East Timor over the past 14 years have also been an important focus.

Outside ophthalmology, I have been both State and Federal AMA President as well as Federal College President and have worked extensively across a range of Government committees. Currently, I am on the board of Avant, the largest medical indemnity insurer in Australia, and also sit on the Cancer Australia Advisory Council.

It has been a privilege and honour to be a part of the Terrace Eye Centre and to serve patients under my care over the past 30 years.



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Queensland Ocular Oncology Service
at Terrace Eye Centre and QIMR
Berghofer Medical Research Institute
Oncogenomics Laboratory,
Ocular Melanoma Collaboration

Meet our researchers



Dr Kelly Brooks
Research Officer,
Oncogenomics
Laboratory

While less common than skin melanoma, uveal melanomas tend to be

more aggressive and lead to poor patient survival. In contrast to skin melanomas where tumour removal from where it first appears on the body is curable in around 95% of cases, 50% of all uveal melanomas will metastasize despite apparent successful treatment of the primary tumour. Unfortunately, once metastasized, uveal melanomas are almost invariably fatal since there are no effective treatments. Surprisingly, the promising treatments currently improving survival in late-stage skin melanomas are largely ineffective for uveal melanomas and as such, new treatments are urgently needed to target this distinct melanoma subtype.

Dr Kelly Brooks is a postdoctoral scientist focused on understanding the unique characteristics of uveal melanomas and is identifying ways to target these for the development of new treatments. The common gene defects that occur in uveal melanomas are different to those of skin melanoma and the consequences of these defects remain poorly understood. To address this, Dr Brooks is using cutting edge gene-editing technology to create models of uveal melanoma-specific gene defects. These models will be of enormous value to the national and international research community and will help to provide the basic understanding and tools to identify the impact caused by these critical gene defects. By understanding these defects, a reachable goal is to develop new drugs tailored to treating uveal melanoma, an outcome desperately needed for patients.

Corneal cross linking on the MBS

Corneal collagen cross linking (CXL) has been a breakthrough treatment for patients with progressive keratoconus, pellucid marginal degeneration and post-LASIK ectasia for the last 10 years.

CXL has 98% chance of halting the progression of keratoconus, and in many cases will actually improve uncorrected and best corrected vision. It is a relatively safe and simple treatment which has been performed for many years on hundreds of patients by our corneal specialists Dr Peter Beckingsale and Dr Sing-Pey Chow.

Until recently, without an applicable Medicare item number, there were significant out of pocket expenses for patients. After years of applications and lobbying, the Australian Government Department of Health has finally approved a new item number for CXL as of May 1st 2018 for patients with a corneal ectatic disorder specifically with evidence of progression on corneal tomography or refractive error (documentation of specific changes in refractive error or corneal topography clarified on

referrals, therefore, would be helpful). CXL is performed in exceptional cases without progression, most commonly when topography guided laser correction is being considered, but the new item number would not be applicable in these cases. CXL is performed as an outpatient treatment, which does not require a health fund.

It is strongly advised that any patient with a new diagnosis of keratoconus or suspicion of keratoconus or any other corneal ectasia, be referred, particularly when symptomatic of progression for further assessment and consideration of CXL. Terrace Eye Centre now has a new state of the art corneal cross-linking facility to better support expert care and management under Dr Peter Beckingsale and Dr Sing-Pey Chow.

Helping country and overseas patients

Terrace Eye Centre has a long tradition of helping patients in the country. While our doctors are often extremely busy, many try to make the effort to help those who live a long distance from Brisbane.

All of our doctors are happy to offer advice on the telephone and via email to ophthalmologists and optometrists in rural and provincial areas. For patients who travel long distances we always try to offer same day appointments to minimise travel time.

For many years, Dr Bill Glasson has been providing an outreach service in Longreach, Blackall, Winton, Barcaldine, Birdsville, Bedourie, Boulia, Windorah, Woorabinda and Katherine seeing patients and performing cataract surgery; more recently, Dr Sunil Warriar has joined in this effort. In the past few years, Dr Glasson has also been instrumental in helping to get the Rockhampton base hospital ophthalmology department up and running. On the international front,

Dr Bill Glasson provides outreach services in Oecussi in East Timor. Dr Guy D'Mellow has visited Vietnam. As well, Prof Tim Sullivan has taught in Cambodia and many other countries around the world.

Dr Mark Donaldson visits Bundaberg four to five times per year in collaboration with Dr Isabel McLean and Dr Jai Pancheakesan. Dr Donaldson also visits the Sunshine Coast four to five times per year, working closely with Dr Jodie Marshall at the award-winning Ormuz Eye Clinic.

Terrace Eye Centre continue to work closely with ophthalmologists in neighbouring Pacific Islands and Papua New Guinea, with our staff assisting with Visa application letters and accommodation options when needed.

The Terrace Eye Centre's approach to maximizing visual outcomes following cataract surgery – not everyone is the same!

Dr Sing-Pey Chow MBBS (Hons) BMEDSC FRANZCO

At Terrace Eye Centre (TEC), we believe that it is important to personalize cataract surgery to the patient's lifestyle and visual requirements in order to maximize the visual outcome.

An avid golfer who is keen to not wear glasses for both seeing the ball in the far distance and reading the scorecard at near will have different visual priorities to someone who loves to embroider for hours. A truck driver who mainly drives during the night will again have different visual priorities compared to someone receiving 24-hour oxygen for lung disease and can no longer wear glasses which constantly fog up! We take all of these factors into account in our treatment planning in order to maximize the patient's satisfaction following surgery.

What are cataracts?

Cataracts occur when the eye's natural lens becomes cloudy. This is most commonly due to age but can also occur in babies and children. Certain risk factors can accelerate the development of cataracts including diabetes, use of steroids, eye surgery, trauma to the eye, or recurrent inflammation in the eye (uveitis).

Cataracts are a leading cause of vision loss in people aged over 40 years and can significantly impact the quality of life. There are different types of cataract, including (i) nuclear, (ii) cortical and (iii) subcapsular cataracts. Some people can get a combination of all three! These can all affect vision in different ways but the most common symptoms include blurred vision, difficulty focusing or judging

depth, haloes and glare as well as glasses that need frequent updating.

When patients are referred for a cataract assessment at TEC, they will receive a comprehensive eye exam to ensure that their visual problem is solely due to cataract and not due to another eye condition, such as glaucoma or macular degeneration. We also assess any other potential concurrent conditions, such as Fuchs endothelial dystrophy that may affect recovery following surgery.

We are committed to the patients understanding their eye condition, as this helps to set a realistic expectation about their post-operative visual outcome.

We will assess the patients' visual requirements including their occupation, driving needs, hobbies and factors that are important to them. For some patients, having crisp driving vision in all light conditions is paramount to their independence, and they will accept the need to wear reading glasses as a trade-off. Other patients would rather have a multifocal intraocular lens to enable less dependence on reading glasses, and they are able to accept glare and haloes around headlights during night-time driving as a trade-off.

Every patient is different. There is no perfect artificial intraocular lens (IOL) that will mimic the body's natural lens at age 20, but we will take the time to tailor each patient's surgery and lens options to best address the specific visual requirements and lifestyle.

Our surgeons offer the whole

range of intraocular lenses (IOLs) including monofocal, multifocal and extended depth of vision IOLs in addition to the correction of concurrent astigmatism with toric IOLs. In our consultation rooms at TEC, we have the state-of-the-art technology to measure the patient's eyes in order to accurately calculate the most appropriate intraocular lens. All patients' intraocular lenses are then calculated using a combination of optimized formulae, including reference to their corneal maps taken from Pentacam tomography. We then utilize computer-guided toric alignment systems before and during surgery such as the Alcon Verion® and Zeiss Callisto® in order to maximize precision in our surgical outcomes.



Your patient's surgery is then performed at the purpose-built Day Surgery Centres, such as the Queensland Eye Hospital on Little Edward Street, where a team of dedicated ophthalmic nurses will care for them.

We strive to provide a comprehensive and personalized approach to cataract surgery at TEC and are happy to accommodate patients at short notice if their cataracts are adversely affecting their quality of life.

Fuchs endothelial dystrophy

Dr Sing-Pey Chow MBBS (Hons) BMEDSC FRANZCO

What is Fuchs endothelial dystrophy (FED) and what causes it?

Fuchs endothelial dystrophy (FED) is a slowly progressive bilateral degenerative disease of the corneal endothelium, which is the innermost layer of the cornea. The corneal endothelium is a monolayer of cells responsible for maintaining corneal clarity by regulating fluid and solute transport between the aqueous and corneal stroma. These endothelial cells do not regenerate; we are born with a finite number of these cells which slowly decrease with age. In patients with FED, this decrease is accelerated. If the number of endothelial cells drop below a certain threshold, the overlying corneal layers become water-logged and swollen. This results in blurry vision that is typically worse in the mornings where images appear 'smoky' or 'misty'.



Any surgery, trauma or inflammation can accelerate the typical decrease of endothelial cells with time. Hence it is very important that all patients requiring intraocular surgery (such as cataract surgery) are assessed preoperatively for FED,

specifically regarding the risk for corneal decompensation. In some patients with existing or at high risk of corneal decompensation, a 'triple procedure' may be the best route for optimising final vision, with the cataract surgery and lens implantation combined with a partial-thickness endothelial corneal graft such as DSAEK (Descemet stripping automated endothelial keratoplasty) or DMEK (Descemet membrane endothelial keratoplasty).

Recent research has shown that genetics do play a role in the development of FED, with the common form of late-onset FED being linked to chromosomes 13, 18, 5 and 9. FED is an autosomal dominant disease with a wide variation in penetrance and expression. An intronic trinucleotide repeat expansion within the TCF4 gene was found to be strongly associated with FED in Caucasian population but less in Japanese population, indicating that we still have much to learn about the underlying cause and predisposition for FED.

What treatment options are available for FED?

When the cornea becomes increasingly swollen, tiny blisters can form on the surface called, initially as 'microcystic oedema' which can eventually coalesce into 'bullae'. These can cause ocular discomfort and increase the risk of a corneal infection due to a compromised ocular surface.

The current gold standard for treating decompensated FED is a partial-thickness endothelial corneal graft, which involves the replacement of the recipient's endothelial cells with donor endothelial cells by DSAEK (Descemet stripping automated endothelial keratoplasty) or DMEK (Descemet membrane endothelial keratoplasty). Compared to full-thickness corneal transplant, both DSAEK and DMEK provide more rapid and complete visual rehabilitation, and keep the eye structurally stronger.

On the horizon are innovative treatment options, such as Descemet Stripping Only (DSO) as well as the use of Rho-kinase (ROCK) inhibitor eye drops and cultivated corneal endothelial cell transplantation. So watch this space!

Be aware of Syphilis – STD on the rise

Dr Sonia Ahn Yuen MD PhD FRANZCO

Sexually transmissible diseases (STDs) are increasingly on the rise in Australia.

Syphilis, a previously rare STD, is becoming an alarming threat particularly in certain populations, such as in men with HIV positive status and in the remote Indigenous communities. Australian Institute of Health and Welfare (AIHW) indicates in its *Australia Health 2018* report that the incidence of Syphilis in Australia "more than doubled between 2004 and 2017 from 10 to 26 notifications per 100,000 people". Whilst this figure is relatively low compared to other STDs, such as Chlamydia, sited as "379 notifications per 100,000 people in 2017", the possibility of Syphilis must be kept in mind, particularly in the setting of atypical clinical presentation as well as in the high-risk patients.

Uveitis is a common ocular presentation of Syphilis in the tertiary stage (advanced stage of Syphilis with wide

spread dissemination, potentially involving the brain, eyes, spinal cord, heart, bone and joints). Shown below is an example of bilateral panuveitis (first episode) presenting in a Caucasian middle age man in the setting of positive HIV status, with subsequent investigation confirmatory for Syphilis.

Early diagnosis of Syphilis is essential, as treatment (typically Penicillin) is available and as prompt management would not only improve the ocular/visual outcome but also minimize both the central and systemic sequelae of tertiary Syphilis.

