Media Statement
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Feast for the senses at Science on the Swan 2019

Lions Eye Institute researchers Dr Fred Chen and Gareth Lingham are presenting at this year's Science on the Swan – Western Australia's premier showcase of new medical research.

The theme of the conference is Neuroscience and the senses: healthy ageing across the life course. The program spans the whole-of-life health experience from birth to old age and the interaction between the brain and body. Conference topics include pain, vision, hearing, cognitive decline and cancer.

The Lions Eye Institute (LEI) is sponsoring the conference dinner on Thursday, June 6 with Dr Michael Mosley – one of the world's top science communicators and famous for popularising the 5:2 diet – giving the plenary speech.

During the course of the conference, LEI ophthalmologist and researcher Dr Fred Chen will give a presentation on the topic: The eye as the window to the ear.

His talk will examine genetic eye diseases that may present with deafness before vision loss. Genetic diseases which cause both hearing loss and retinal abnormalities include Usher syndrome, mitochondrial diseases, collagen diseases, muscle diseases and rare metabolic disorders. Retinal features in these conditions are distinct and unique.

"Examining the retina can give us clues as to what gene has caused the deafness," Dr Chen said. "The most common form is Usher syndrome in which children are

born deaf, with night vision loss emerging in early childhood followed by constriction of visual field over time.

“Some with rarer genetic mutations may develop early loss of central vision with preserved peripheral vision, opposite to Usher syndrome. Less common retinal features seen in syndromic hearing loss include macular degeneration and retinal detachment.”

LEI Clinical Research Orthoptist Gareth Lingham is also presenting at Science on the Swan. His topic is: Recalling our time in the sun: how does reported sun exposure compare with an objective measure?

His research has found that an adult’s recall of the amount of time their children spent in the sun generally can’t be relied upon to assess future risk to eye health.

The participants in the WA-based Kidskin Study, now aged 25-30 years, were asked to recall how much time they had spent outdoors in the sun during early childhood.

“We compared the Kidskin Study participant’s responses with actual data on time spent outdoors collected from their parents at the time some 15 years earlier and found the two did not agree well,” Mr Lingham said.

“We’ve concluded from this that long-term recall of childhood sun exposure is probably not accurate. This is important for researchers who want to investigate how sun exposure during childhood can impact our long-term health.”

For more information about Science on the Swan, including the full program, visit https://scienceontheswan.com.au/

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Image: The eye of a person aged in their 20s reveals damage caused by early sun exposure. The area outlined in pink shows a large area of sun damage – known as conjunctival ultraviolet autofluorescence