

July 29, 2017

Raffle for retinal disease research worth its weight in gold.

A lucky find in the form of a six ounce gold nugget will be raffled to raise money for stem cell research into retinal disease.

Chris Morten, president of the Nannup Lions Club and raffle coordinator, found the nugget while prospecting north of Meekatharra 14 years ago with his late wife Dorothy.

Mr Morten suffers from a rare form of retinal damage and has just five per cent of normal sight.

He hopes that money raised from *Tandy's Save Sight Appeal* – named after his much-loved vision assistance dog - will support the research of Lions Eye Institute (LEI) Brian King Research Fellow Dr Carla Mellough.

Dr Mellough is working hard to advance the understanding of human eye development and diseases that cause visual loss. This project is assisted by the Western Australian Retinal Degeneration Study, led by Dr Fred Chen and his team, who have been collecting skin biopsies from patients affected by inherited retinal disease. This has created a bank of patient tissues that is an invaluable resource for the study of different forms of blindness.

"We are entering a new era of research where we are able to directly study the human eye in a way which was previously impossible," Dr Mellough said.

"This research involves taking skin biopsies and 'reverse engineering' the tissue back from a mature skin identity to a stem cell-like one.

"When I am ready to make retinal tissue from the stem cells, I change the signals that they receive while they are growing and this encourages them to develop into eye tissue.

"By coercing the cells in the right way, we can make miniature versions of the eye, which we call 'organoids'. These contain the retina - the light sensitive tissue of the eye - as well as the retinal pigmented epithelium which is the supportive tissue underlying the retina. The retinal organoids can even develop some lens and cornea, just like the developing human eye."

The ability to directly study the human retina in this way will help us to tease out how different inherited forms of retinal degeneration are causing visual problems. By working out why things are going wrong, the LEI researchers hope to create new opportunities to prevent, treat and cure blinding diseases such as macular degeneration and other retinal degenerative diseases, which affect many thousands of Australian families.

Mr Morten said he was delighted to make a contribution to Dr Mellough's research.

The gold nugget, independently valued at \$12,500, is a reminder of a special time in his life and Tandy will wear a replica on her collar over the next few months while tickets are sold.

The two-year old golden retriever is the mascot of the Lions Club of Nannup, where she was born and bred.

"It's been 26 years since a doctor demanded my car keys and, like so many other low vision people, I still long to be back behind the wheel," Mr Morten said.

"For 15 years my late wife Dorothy did all the driving as we roamed Australia in our four-wheel-drive. I've held on to the truck, just in case, and Tandy has booked the front passenger seat for when I get my license back.

"By then she'll well and truly have earned that seat."

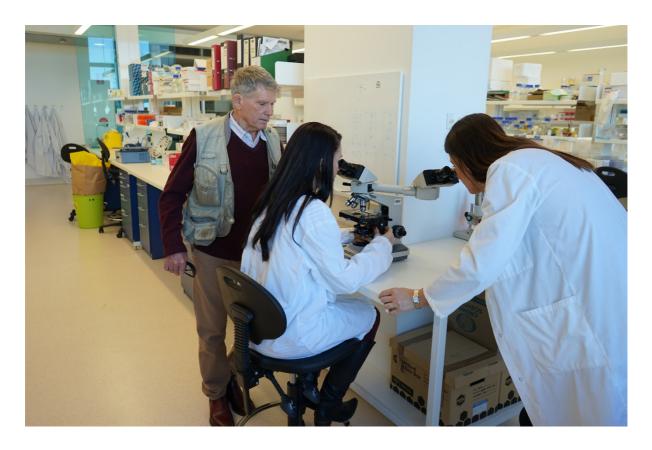
Tickets for *Tandy's Save Sight Appeal* can be purchased for \$10 by contacting Nannup Lions nannup.lions@gmail.com or by visiting the Shared Vision Office in the foyer of the LEI, 2 Verdun St, Nedlands.

The raffle winner will be announced at a Nannup Lions Club dinner in November where LEI researchers will brief guests on the latest breakthroughs in vision research.

For more information, contact Mr Morten via the email address nannup.lions@gmail.com



Photos: Dr Mellough with Chris Morten and guide dog Tandy



LEI Director of Research, Professor Mariapia Degli-Esposti, Dr Carla Mellough and Chris Morten in the laboratory

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