

Introducing the Research & Development Team

November 2018

Ms Li Wen was appointed as the Research and Development Assistant to the NSW Tissue Banks in August and joins Dr Monira Hoque and Dr Chris Hodge to form the R&D Team.

Working with Dr Con Petsoglou and the Corneal Bioengineering Group led by Prof Gerard Sutton, the R&D team is investigating the role of corneal endothelial cell culturing systems and their potential use in transplantation.

This involves taking healthy donor tissue, separating the crucial endothelium layer and growing these cells on a petri dish. These cells can potentially be grown into thin sheets or be made into an injection of cells, which can then be transplanted into a patient. Most importantly, this novel method hopes to use one donor cornea and transform it into multiple batches of healthy cells to be potentially used for multiple patients. This method has already had a successful clinical trial at the Kyoto Prefectural University of Medicine (January, 2018). As such, our research team has strong collaborations with the Kyoto research team, who visited us in September 2018 to offer expertise on our project goals.

A subsequent outcome of this project would be to work in collaboration with the makers of the iFix pen. We hope to use the concept of 3D printing to see if healthy corneal cells from each layer can be printed with the iFix



From left to right: Ms Li Wen, Dr Monira Hoque, Dr Christopher Hodge

ink to create a bioengineered cornea, complete with all three healthy layers. Preliminary results for this project are being collected in the hope of applying for NHRMC grants, as this project represents a huge investment of skills and knowledge. We are also hoping to present our findings at RANZCO in Adelaide, 7-8th March 2019.



From left to right: A/Prof Naoki Okumura, Dr Monira Hoque and Prof Noriko Koizumi conducting a corneal tissue cell culture demon-

Visit by Prominent Japanese Researchers

The NSW Tissue Banks and the Sydney/Sydney Eye Hospital Corneal Unit had the honour of hosting Prof Noriko Koizumi and A/Prof Naoki Okumura from the Kyoto Prefectural University in Japan in September. The Professors are leading a research group that have developed a pharmaceutical and tissue engineering treatment for dysfunction of the endothelial layer of the cornea which is the inner most layer of the cornea.

The research group have demonstrated that rho kinase (ROCK) inhibitor promotes corneal endothelial cell (CECs) multiplication and have started a clinical trial using eye drops and injection of CECs into the anterior or front chamber of the eye.

Prof Noriko Koizumi and A/Prof Naoki Okumura were in Sydney to share these results and their techniques of cell culture.



From left to right: Prof Noriko Koizumi, A/Prof Naoki Okumura and Raj Devasahayam discussing the methods of corneal tissue storage used in NSW



From left to right: Dr Kate Leah, Dr Con Petsoglou, A/Prof Naoki Okumura, Prof Noriko Koizumi, Dr Greg Moloney, Dr Daniel Garcerant-Congote, Dr Nino Hirnshall in theatre at Sydney/Sydney Eye Hospital to observe some corneal surgery



Prof Noriko Koizumi and A/Prof Naoki Okumura with the tissue bank R&D and operational team

Media and Promotion

Saffron Day

The inaugural *Saffron Day* was held on the 9 November 2018. The day honours the life of little Deyaan Udani, a bright seven year old boy with an infectious smile, who tragically passed away in 2016.

Deyaan loved his family and always had a desire to help others. When on holidays with his family in India in 2016, Deyaan tragically suffered a brain haemorrhage. Deyaan's parents' decision to donate his organs meant that four lives were saved as a result of this incredible gift.

Deyaan and his older sister Naisha had learned about organ and tissue donation at school. The siblings told their parents they wanted to help save the lives of others



SaffronDay
#daitforDeyaan | 9 Nov 2018

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Poster promoting Saffron Day 2018 depicting Deyaan Udani

DonateLife Thank You Day 2018

Sunday 18 November 2018 was DonateLife Thank You Day.

Thank You Day is a time for the community to come together and say 'thank you' to all donors and their families, whose stories inspire us to register at donatelife.gov.au and discuss our donation decisions.

It's also an opportunity to acknowledge our donation and transplantation specialists, joined by many other health professionals, who care for our donors, recipients and their families.

**Thank You,
from all of us.**

DonateLife Thank You Day 2018
Sunday 18th November

Jessica, 25
Corneal recipient

Learn more at
donatelife.gov.au/tyd



DonateLife Thank You Day
Sunday 18 November

Acknowledging the generosity of organ and tissue donors and their families.

New Volunteer Program for the OTDS

The NSW Organ and Tissue Donation Service has recently established a Volunteer Program to assist with existing efforts to encourage people to discover the facts and discuss their decision about organ and tissue donation with their loved ones.

The range of activities and events that volunteers can participate in include:

- Information/trade displays

- Event coordination and support
- Administrative duties
- Community speaking engagements
- Media opportunities

For more information contact:
Tiffany Chu, NSW OTDS Project Officer
T (02) 8566 1700

Life Giving Stories in Wollongong

Directed by master storyteller and photographer William Yang and writer and producer Annette Shun Wah, *Life Giving Stories* is an inspiring storytelling work bringing together individuals and families from culturally and linguistically diverse backgrounds to tell personal stories about their lives.

Held on the 17 November, those who attended were moved by the heartbreaking stories of grieving parents who donated the organs of their son, to the extraordinary strength and resilience of individuals and families who have been touched by organ and tissue donation.



Contact

Please contact the staff of the NSW Tissue Banks on 02 9382 7855 if you have any questions or would like a speaker for a meeting, dinner or event. To book facility tours on the 1st Wed of Month, at 11am please ring 02 9382 7855