

Another Busy Year!

The Lions NSW Eye Bank had another busy year in 2016. The number of corneal transplants undertaken was up by 2.7% compared to 2015; all requests were met and it required a 5.6% increase in eye donation rates to match the need.

The trend in surgical tissue use continues. In 2016, just over a third of the tissue released for transplant was full thickness (all 5 layers) permitting replacement of the recipients' cornea with the donated graft and just under a third of the tissue was released pre-cut to facilitate transplantation of the inner most layers of the cornea only. The equipment used to pre-cut the cornea, a microkeratome and was purchased with funds very kindly donated to the Lions NSW Eye Bank

by the Lions Save Sight Foundation.

Overall, the number of new requests for corneal transplants was the highest ever with a 5.6% increase compared to 2015. Note, these requests are captured on a monthly basis for surgery that is booked for a time that matches the surgeon's availability and the recipients need for surgery. With the NSW population ever increasing, this number is expected to continue to climb.



NSW Tissue Banks 2016 Tree of Life - 453 names without whom we would not be able to provide a service

Australian Ocular Biobank Open for Business

In a National first, the work of the Australian Ocular Biobank (AOB) has commenced and refurbishment of its permanent home is underway.

Established in collaboration with the Save Sight Institute and Sydney/Sydney Eye Hospital, the AOB will allow for the long term storage of a range of ocular tissues for research purposes from living and deceased donors. The AOB will assist researchers in the discovery of new treatments and preventative strategies.

The AOB will play a significant role in the understanding and treatment of various causes of eye disease and vision impairment in Australia, such as age-related macular degeneration, diabetic retinopathy and glaucoma.

The Lions NSW Eye Bank, under the governance of the NSW Organ and Tissue Donation Service, (OTDS) has historically provided tissue for research. However, there will now be the capacity for the long term storage of tissue as well as the creation of an archive of

prospective research samples and data sets. Welcoming future collaborations with other biobanks, the AOB will have the capacity to build a national network, sharing tissue amongst researchers across Australia.

Set up utilising a cost recovery model like other tissue banks in Australia, the AOB aims to be sustainable and self-sufficient.

The commencement of the AOB has triggered an update in the logo of the NSW OTDS, the creation of a stand-alone logo (as pictured below) and a formal opening is being planned for a few months time.



Health
NSW Organ & Tissue
Donation Service

Incorporating
NSW Bone Bank
Lions NSW Eye Bank
Australian Ocular Biobank



Australian
Ocular Biobank

Microscope Purchase

As mentioned in the November Newsletter, the winner of the 2016 Lions Save Sight Foundation Community Challenge, Jess Siviz generously donated her winning cheque to the Lions NSW Eye Bank.

The donation has been used to purchase a dissection microscope (pictured right) and camera to conduct tissue assessment and take photographs of eye tissue allocated for research by the Australian Ocular Biobank. This resource is an invaluable tool that will as-

ist research into eye conditions many years into the future.

Thank you Jess!



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New Additions to the Team

The NSW Tissue Banks has welcomed to two new team members, both named Amy, in the last few months. Consolidating capacity to provide the existing service and future proofing us for the anticipated busy times ahead, the two roles are new for the Banks.



Production Team: (L-R) Meidong Zhu, Raj Devasahayam, Amy Chan

Amy Chan (pictured left with Lab Manager Raj Devasahayam and Meidong Zhu) has been employed as a Tissue Production Scientist.

Amy C joins the Production Team who are tasked with the assessment and preparation of ocular tissue and soon skin and amnion tissue for transplantation.



Joining the Amy invasion is Amy Deller who has been employed as a Quality Officer. Amy D joins Simon Cooper (pictured right) to form a Quality Team.

The Quality Team are integral to the maintenance and compliance with the Regulatory Framework.

Quality Team: (L-R) Simon Cooper, Amy Deller

Sharing the Success and Plans for the Eye Bank

A number of staff from the Lions NSW Eye Bank have recently been invited to present the success and future plans for the Eye Bank.

Simon Cooper was invited to present at the 12th Annual International Electromaterials Science Symposium at Wollongong University held in February 2017.

Simon presented some research that has been performed in conjunction with Wollongong University detailing the journey of research from bench to bedside in curing corneal blindness. The focus of the project was on using cutting edge Electromaterials science to create a 3 dimensional scaffold on which corneal cells are grown. This is the start of work the Eye Bank is undertaking under the new Corneal Biomaterials Program, with the aim of treating not only corneal blindness but many ocular tissue diseases.

Pierre Georges and Meidong Zhu both presented at the 2017 EBAANZ Annual General Meeting held February in Brisbane.

Pierre presented a review that has been undertaken about the use of sclera tissue for transplantation in NSW. Sclera

is the white part of the eye and is used for patching and making conduits to stabilise pressures inside the eye. NSW has the highest rate of scleral use in Australasia.

Meidong presented the positive impact organ culture corneal storage has had on the ability of the Lions NSW Eye Bank to meet the demand for corneal tissue for transplantation in NSW. Commencing in November 2011, over a 18 month period, and with thanks to the generosity of the donors and their families, the scheduled wait list for corneal transplants was effectively wiped out. The demand for corneal transplants has been met since that time.

NSW will host the 2018 EBAANZ Annual General Meeting held in conjunction with the National Corneal Society scientific meeting from the 1st March 2018.



University of Wollongong Innovation Campus, location of the 12th Annual International Electromaterials Science Symposium

Research & Development Role

To ensure the Lions NSW Eye Bank continues to meet the needs of its stakeholders, a formal Research and Development program is underway.

Essential to this program is the appointment of a Scientist to undertake the fundamental science; to write up the

results; and assist with applying for grants. The Lions NSW Eye Bank is very grateful for the assistance of the Lions Save Sight Foundation to establishing this role.

Contact

Please contact the staff of the Lions NSW Eye Bank on 02 9382 7288 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