

## ANZ Keratoconus Registry

Keratoconus is a major eye disease representing the leading cause of corneal transplantation in Australia and through most other countries around the world. The incidence of the disease has previously been proposed as approximately 1 in 2000 however recent data suggests this figure may be substantially higher, a reflection of new diagnostic techniques and our increasing understanding of the disease.

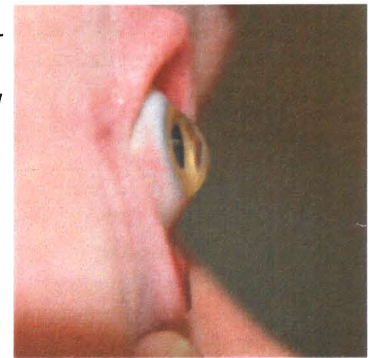
Keratoconus is significant because it first affects patients around puberty thereby representing a life-long consideration. A genetic component has been found in up to a quarter of patients however, like the disease presentation itself, this finding is highly variable. Researchers suspect that ultimately keratoconus represents a highly complex, multifactorial disease that requires both genetic and environmental input to progress.

Although we have made great strides in our understanding, there remains significant gaps in the literature. Previously, several large databases have contributed important information, driving our understanding of the disease. With advancing technology and a greater awareness of genetic information we are in a great position to contribute further.

In 2016, the Lions NSW Eye Bank has been working with other major universities and eye research centres within Australia, NZ and across Asia to develop a database of keratoconus patients. This international collaboration will create the largest registry of it's kind in the world.

The goal is to understand the disease more completely; in particular how to diagnose the disease earlier and more effectively, recognise which patients are at greatest risk of disease progression, and how we may customize treatment to optimize patient results.

The Sydney arm of the project is led by Professor Gerard Sutton, Medical Director of the Lions NSW Eye Bank and hospital scientist Dr Chris Hodge. The research possibilities of the register have generated significant interest and will undoubtedly drive keratoconus research for the next decade.



Keratoconus, a condition of the cornea that presents as a thinning and 'coning' of the cornea

## Community Challenge Generosity

The winner of the 2016 Lions Save Sight Foundation Community Challenge was announced at a dinner held on the 27th August 2016 at the Bankstown Sports Club and the Lions NSW Eye Bank, was a direct beneficiary in more ways than one with thanks to the winner Jess Siviz.

The judging panel; Lion Deyann McDonnell, Lion Ian



Lions NSW-ACT Save Sight Foundation 2016 Community Challenge Winner Leo Jess Siviz presenting her winners' cheque to Jane Trelloggen for the Lions NSW Eye Bank. Looking on are (L to R) Community Challenge judges Lion Ian Warren, Lion Deyann McDonnell and Lion Phil Bower, Chair Lions NSW-ACT Save Sight Foundation, August 2016.

Warren and Jane Trelloggen, Manager of the NSW Tissue Banks, incorporating the Lions NSW Eye Bank, had the difficult task of picking a winner of the Challenge from three high quality candidates who had generously worked to raise funds and promote the Save Sight Foundation and its aims within their local communities.

The winner of the Community Service Award, Leo Jess Siviz, generously donated her winning cheque of \$3000, to the Lions NSW Eye Bank, presenting it to Jane at the dinner.

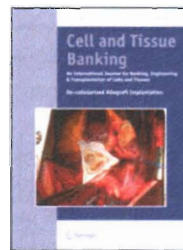
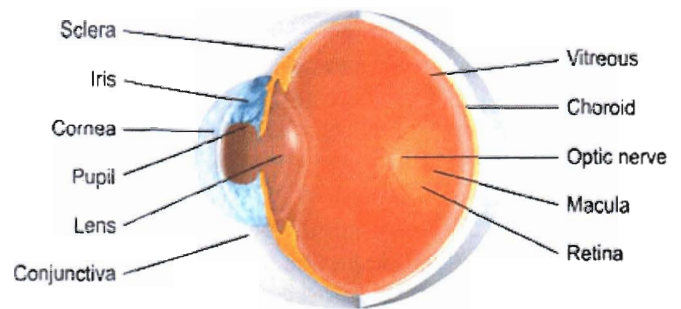


The funds will be used to purchase a dissection microscope (pictured left) and camera to conduct tissue assessment and take photographs of eye tissue allocated for research. This resource is an invaluable tool that will assist research into eye conditions many years into the future.

## Article Accepted for Journal Publication

The sclera is the white, outer layer of the globe of the eye (pictured right) which in addition to the cornea, can be transplanted. Scleral grafts represent around 10% of the Lions NSW Eye Bank requests for tissue for transplant in any given year. The majority of requests are by glaucoma specialists requiring the tissue to stabilize the eye following invasive surgery however a support and protection role exists for ocular implant and retinal surgery also.

Recently Lions NSW Eye Bank staff undertook an evaluation of the use of scleral grafts within NSW and reviewed the current literature supporting use of this tissue. This study represents the first significant review of scleral grafts within the literature and has recently been accepted for publication in "Cell & Tissue Banking", an international journal with a focus of transplantation techniques. Validation of a great effort by all staff who contribute to



the retrieval and preparation of this important tissue and the generosity of the donors and their next of kin. This will be the second article published in this Journal by the Lions NSW Eye Bank within the last six months.

## Visit by 'Hospital with Wings' Nurse

The Lions NSW Eye Bank recently had the delight of hosting Elisa Urruchi for a visit. Elisa is a Peruvian ophthalmic nurse who has worked with the ORBIS International Flying Eye Hospital for six years.

The Flying Eye Hospital is a mobile teaching hospital that conducts surgery and surgical training throughout Latin America and the Caribbean, Africa and Asia. Elisa is a staff nurse in the hospital and conducts training and surgical care in the operating theatre, clinic and the classroom in addition to programmatic capacity development work.



Elisa Urruchi and Raj Devasahayam in the Lions NSW Eye Bank lab

Elisa is completing her Masters in Public Health, is a board member of the Peruvian Ophthalmic Nurses Association and took time out of her Sydney holiday to visit the eye bank and learn about how we store and prepare tissue for transplantation. More information about the ORBIS project can be found at <http://www.orbis.org/>.

## Horizon Planning Shared at Symposium

The Lions NSW Eye Bank Research and Development plans and an overview of the achievements of the last five years was shared with the NSW Organ and Tissue Donation Service at the Annual Symposium in October. With the support of the Lions, the R&D plans promise to assist the Bank to meet the stakeholder needs into the future.



The ORBIS Flying Eye Hospital



Part of the interior of the Flying Eye Hospital



Elisa Urruchi and Colleagues in Abu Dhabi

## 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