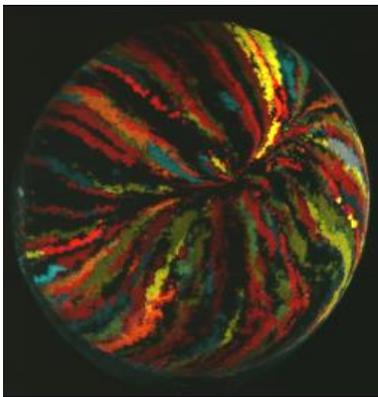




## SoMS, BABS and GSBE Cross-Faculty Seminar Series

### Stem cell grafts for corneal regeneration and vision restoration: a 10-year journey from bench to bedside and back to the bench

**Nick Di Girolamo, School of Medical Sciences, University of New South Wales**



**Abstract:** Limbal stem cell deficiency is a debilitating disease which requires a cell therapy of sorts to restore sight. Despite the number of clinical trials conducted over the past 40 years, a standardised treatment remains elusive. This talk will provide an overview of the past and current therapeutic options, including our own, and the limitations and hurdles that need to be overcome before a safe and efficacious product reaches the market place. However, before patient outcomes can be improved, it is imperative to expand our knowledge base about the basic biology of the cornea and its progenitors including their specification, distribution, differentiation, mobilisation, and mode of division during homeostasis, wound-healing, disease, and transplantation. We have begun to better define these processes using a multi-colour transgenic Confetti mouse model by collating accurate fate maps of these cells in the transparent, highly accessible cornea using non-invasive intravital, confocal and light-sheet microscopy.

**Bio:** Professor Nick Di Girolamo is Director of the Ocular Diseases Research Unit and Head of the Mechanisms of Disease and Translational Research, School of Medical Sciences, University of New South Wales. Nick leads an internationally recognised group whose mission is to restore sight in patients blinded from severe corneal disease. His research program integrates basic sciences, revolutionary animal models, and world-first clinical trials using adult stem cells; the results of which have demonstrated improved eye health and vision in patients. Nick has received 2 decades of continuous funding from the NHMRC and other national and international funding agencies and has over 100 peer reviewed published articles.



**Date & Time:** Wednesday 11 October at 4.00 pm followed by Happy Hour.

**Venue:** Lowy Cancer Research Centre, Level 4 seminar space [Map](#)

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