



Project Title: Role of a wet lab: determining the learning curve for corneal lamellar dissection		Code: WIMR7
Host School / Institute: Westmead Institute for Medical Research		Address: Westmead Hospital and Westmead Institute for Medical Research
Certificates & Clearances required: No		
Primary Supervisor: A/Prof Chameen Samarawickrama		
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Co-Supervisor/team: Research team includes Damien Hunter - post-doctoral research scientist, Min Sung Kwon - Masters student and Dominic McCall - ophthalmology senior registrar		
Project Type: Laboratory based; Clinical; retrospective review		
Project Category: Vision; Ophthalmology		
Skills / Attributes of a successful student: <ul style="list-style-type: none">-steady hands-ability to work independently-some data analytic skills would be preferable-manuscript writing skills-presentation skills		
Project Keywords: Ophthalmology; cornea; surgery; wet lab		
Project Description: Introduction: Corneal surgery requires a steady hand and lamellar dissection (partial thickness corneal surgery) requires experience to consistently achieve the correct depth within the cornea. This “learning curve” is well known about, but not well defined. Aims: To determine the learning curve for a completely novice surgeon to achieve a consistent depth of less than 100 microns thickness with corneal lamellar dissection. Hypothesis: The learning curve will be approximately 20 dissections before consistency is achieved in lamellar dissection. Methods: A medical student will be shown the technique of corneal lamellar dissection by an experienced corneal surgeon. On an artificial anterior chamber, with the aid of a microscope, the student will attempt a lamellar dissection using a pig eye with the aim of being under 100 microns thickness. Once complete, the cornea will be fixated and stained with H&E, and the lamellar dissection measured. The number of attempts needed to achieve 3 consecutive dissections under 100 microns thickness will be recorded.		