

CURRICULUM VITAE: DR LIONEL KOWAL

TERTIARY EDUCATION

MBBS University of Melbourne (1974)

POST GRADUATE DEGREES

1982: Fellowships of the Royal Australian and New Zealand College of Ophthalmologists (FRANZCO) and the Royal Australasian College of surgeons (FRACS)

POSITIONS HELD IN OPHTHALMOLOGY

- 1987: Fellow, Department of Paediatric Ophthalmology and Strabismus, Wills Eye Hospital, Jefferson Medical College, Philadelphia, PA, USA.
- 1991-current: Ocular Motility Clinic, Royal Victorian Eye and Ear Hospital (RVEEH) (Director since 1992).
- 1992-current: Senior Fellow, Department of Ophthalmology, University of Melbourne.
- 1987-current: Part time lecturer, Department of Optometry, University of Melbourne.

PAPERS PUBLISHED

Lateral Orbitotomy in the Management of Challenging Exotropia.

Yahalom C., McNab A., Simon G.B., Kowal L.

Journal of Pediatric Ophthalmology & Strabismus. 2009 Jul-Aug;46(4):223-5.

Vestibular, saccadic and fixation abnormalities in genetically confirmed Friedreich ataxia.

Fahey M.C., Cremer P.D., Aw Swee T, Millist L, Todd M.J., White Owen B, Halmagyi M., Corben L.A., Collins V., Churchyard A.J., Tan K., **Kowal L.**, and Delatycki M.B. Brain 2008; 131; 1035-1045.

Oxybutynin-associated esotropia.

Wong E, Harding A, Kowal L.

J AAPOS, 2007 Dec;Vol 11, No. 6:624-625.

Botulinum Toxin in the treatment of strabismus. A review of its use and effects.

Kowal L, Wong E, Yahalom C.

Disabil Rehabil. 2007;29(23):1823-1831.

Chiari 1 malformation presenting as strabismus.

Kowal L, Yahalom C, Shuey N.H.

Binocul Vis Strabismus Q. 2006;21(1):18-26.

Lateral rectus muscle disinsertion and reattachment to the lateral orbital wall.

Morad Y, Kowal L, Scott A B.

Br J Ophthalmol. 2005 Aug;89(8):983-5.

The clinicopathologic basis of Graves' ophthalmopathy: a review.

Kloprogge S, Kowal L, Wall J, Frauman A G.

Eur J Ophthalmol. 2005 May-Jun;15(3):315-23.

The Ophthalmologist and Learning Disabilities.

Hertle R.W., Kowal L., Yeates K.

American Academy of Ophthalmology 'Focal Points'. 23(2): 1-12; March 2005.

Refractive surgery and strabismus.

Kowal L, Battu R, Kushner B.

Clin Experiment Ophthalmol. 2005;33:90-6.

Anti-GM1 antibodies: the cause of otherwise unexplained ophthalmoplegias?

Kowal L, Gajus M, Kornberg A.

Clinical and Experimental Ophthalmology. August 2004, Vol. 32, No. 4, pp. 411-414(4)

Clinical application of the multifocal visual evoked potential. Case Report

Crewther D, Luu C, Kiely P, Kowal L, Crewther S.
Clinical and Experimental Optometry May 2004, 87.3, 163-170.

Acute esotropia in heroin withdrawal: a case series.

Kowal L, Mee J.J., Nadkarni S, Kalf S, Kozminsky M.
Binocul Vis Strabismus Q. 2003 Fall;18(3): 163-6.

Pediatric ophthalmology in Australia.

Kowal L.
J AAPOS. 2003 Oct;7(5):311-3.

Heterozygous mutations of the kinesin KIF21A in Congenital Fibrosis of the ExtraOcular Muscles type 1 (CFEOM1).

Kowal L, et al.
Nat Genet 2003;35,318-321.

Central and peripheral vision loss associated with nefazodone usage.

Luu C., Kiely P., Crewther D., Kowal L., Crewther S.
Documenta Ophthalmologica May 2003 106(3): 319-325

Fixation linked hypotropia in high myopia.

Kowal L., Kumar V.
Binocul Vis Strabismus Q 2003 Spring; 18(1): 32-34

Cirugia refractiva y estrabismo: icomo evitar complicaciones y diplopia!

de Faber J.T. and Kowal L.
Acta Estrabologica 2003; 32 (1).

Spontaneous recovery from inferior rectus contracture (consecutive hypotropia) following local anesthetic injury.

Sutherland S, Kowal L.
Binocul Vis Strabismus Q. 2003 Spring-Summer; 18(2): 99-100.

Hereditary Hyperferritinemia – Cataract Syndrome: Prevalence, Lens Morphology, Spectrum of Mutations, and Clinical Presentations

Craig J.E, McLeod J, Gumley S, Mackey D.A., Wirth G, Elder J, Kowal L, Clark B, Kirkland M.
Arch Ophthalmol 2003;121 1753-1761

Diplopia after Refractive Surgery: occurrence and prevention.

Kushner B, Kowal L.
Archives of Ophthalmology. March 2003 121(3) 315-21

Diplopia as a complication of laser in situ keratomileusis Surgery.

Yap EY, Kowal L.
Clin Experiment Ophthalmol 2001 Aug 29;4 268-71

Refractive surgery and diplopia.

Kowal L.
Clin Experiment Ophthalmol 2000 Oct 28;5 344-6

Changes as the result of ageing in extraocular muscles: a post-mortem study.

McKelvie P, Friling R, Davey K, Kowal L.
Aust N Z J Ophthalmol 1999 Dec 27;6 420-5

Squint: strabismus and Amblyopia

Kowal, L.
Current Therapeutics Nov. 1999 26-30

The Heimann-Bielschowsky phenomenon: dissociated vertical nystagmus.

Davey K, Kowal L, Friling R, Georgievski Z, Sandbach J.
Aust N Z J Ophthalmol 1998 Aug 26;3 237-40

The snapped inferior rectus.

Kowal L, Wuttiphan S, McKelvie, P.
Aust N Z J Ophthalmol 1998 Feb 26:1 29-35

Facial muscle spasms: an Australian study.

Kowal L, Davies R, Kiely PM.
Aust N Z J Ophthalmol 1998 May 26:2 123-8

Refractive versus corneal changes after photorefractive keratectomy for astigmatism.

Alpins, NA, Tabin GC, Adams LM, Aldred GF Kowal L.
Jrnl of Refractive Surgery 1998 July-August Vol. 14(4)

Review of facial and muscle spasms.

Kiely P, Kowal L,
Clinical and Experimental Optometry 1997 March/April Vol 80 No 2

Diplopia following subcutaneous injections of botulinum A toxin for facial spasms.

Wuttiphan S, Kowal L, O'Day J, Jones S, Price J.
J Pediatr Ophthalmol Strabismus 1997 Jul-Aug 34:4 229-34

Evaluating torsion with torsionometer, synoptophore, double maddox rod test and maddox wing: reliability study.

Georgievski Z, Kowal L.
Australian Orthoptic Journal

Assessment of subjective pain following photorefractive keratectomy.

McCarty C A, Garrett K M, Aldred G F, Taylor H R, Kowal L. et al.
Jnl of Refractive Surgery 1996 March/April Vol. 12(3)

Facial tics.

Kowal L.
Aust Fam Physician 1995 Oct 24:10 1870-1

Supranuclear downgaze saccadic palsy persisting after total ophthalmoplegia following severe head trauma.

Georgievski Z, Kowal L, Wilkinson R, McCartney P J.
Aust Orthoptic Jnl 1995 31, 41-44

A survey of symptomatic ocular torsion.

Georgievski Z, Kowal L.
Strabismus 1995, 3 (4): 169

A 10 year study on the ocular manifestations of head injury.

Georgievski Z, Kowal L, Hollenbach E.
In Louly M, editor. West Meets East. Transactions of the VIIIth International Orthoptic Congress, Kyoto, Japan, October 8 to 11, 1995: 63-67

MRI in the heavy eye phenomenon.

Kowal L, Troski M, Gilford E.
Aust N Z J Ophthalmol 1994 May 22:2 125-6

Choroidal folds in Graves' ophthalmopathy.

Kowal L, Georgievski Z.
Aust N Z J Ophthalmol 1994 Aug 22:3 216

The eyes in head injury and traumatic brain damage.

Kowal L, Georgievski, Z.
Think Magazine, March/April 1992

Cosmetic corneal tattooing.

Kowal L, Steiner H.
Aust N Z J Ophthalmol 1992 Feb 20:1 69-70

Ophthalmic manifestations of head injury.

Kowal L.
Aust N Z J Ophthalmol 1992 Feb 20:1 35-40

Arterial macroaneurysm of the optic disc.

Kowal L, Steiner H.
Aust N Z J Ophthalmol 1991 Feb 19:1 75-7

Headaches and the ophthalmologist.

Kowal L.
Aust Fam Physician 1991 Sep 20:9 1326-7

Botulinum toxin.

Kowal L.
Aust N Z J Ophthalmol 1988 Aug 16:3 264-6

Abnormal fibrinolysis in retinal vein occlusion.

Favilla I, Stubbs K, Kowal L.
Aust J Ophthalmol 1981 Aug 9:3 213-8

PUBLISHED CONFERENCE ABSTRACTS**Phospholine iodide in the treatment of refractive accommodative and high AC/A ratio intermittent esotropia: a preliminary report.**

Georgievski Z, Kowal L, Wutthiphan S, Friling R, Davey K.
Strabismus 1997, 5(1): 35

Torticollis driven by the amblyopic eye.

Kowal L, Colville D, Georgievski Z, Friling R.
Strabismus 1997, 5(1): 37

The distance "Krimsky".

Kowal L, Davey K, Friling K, Georgievski Z.
Strabismus 1997, 5(1): 35

CONTRIBUTION TO PUBLISHED GRAND ROUNDS**Grand Rounds #60: a case of persistent diplopia after four surgical procedures for Duane's syndrome.**

Ainsworth JR, Campos EC, Good WV, Gupta B, Kowal L.
Binocul Vis Strabismus Q 2000 Winter 15:4 344-8

Case history of boy with Duane's Syndrome

Ruttum, M, Kowal, L.
JPOS, 37:107-110;2000

Grand Rounds #49: A case of bilateral asymmetric Duane syndrome with fixation with the more affected eye.

Kushner BJ, Egbert JE, Ellis FJ, Foster RS, Kowal L, Kraft SP, Lueder GT.
Binocul Vis Strabismus Q 1998 Spring-Fall 13:1 1st Qtr 38-44

Grand Rounds # 44: Face turn in nystagmus: the important role of alternating monocular occlusion in the assessment.

Binocul Vis Strabismus Q 1996 11:268-274

LETTERS PUBLISHED**Congenitally enlarged extraocular muscles: Can congenital thyroid eye disease exist in a euthyroid infant?**

Kowal L.
Ophthal Plast Reconstr Surg. 2007 May-Jun,23(3):253

LASIK for hyperopia.

Kowal L.

Ophthalmology. 2005 Oct;112(10):1847.

Tic disorders in children with frequent blinking.

Kowal L.
JAAPOS 2004;8:594

Visual complications of warfarin.

Kowal L., Harper C.A.
Med J Aust. 2002 Apr 1; 176(7):351

PEDIG study on amblyopia; vision therapy by atropine penalization versus occlusion.

Kowal L.
Binocul Vis Strabismus Q. 2002 Winter; 17(4):275.

Evaluation of fourth cranial nerve palsies.

Kowal L.
Strabismus 1999 Jun 7:2 137

Pretarsal injections of botulinum toxin improve blepharospasm in previously unresponsive patients.

Kowal L.
J Neurol Neurosurg Psychiatry 1997 Oct 63:4 556

Dissociated deviations: fixation linked or caused by inattention.

Binocular Vision Quarterly 1997 Vol 12 p12

Who needs botulinum toxin?

Aust & NZ Jnl Ophth. 1992 Feb

Contrast sensitivity letter chart as a test of visual function in amblyopia.

Kowal L.
J Pediatr Ophthalmol Strabismus 1991 May-Jun 28:3 180

Tendon lengthening procedures.

Kowal L.
Aust N Z J Ophthalmol 1991 May 19:2 162-4

Retinal vein occlusion.

Doc Ophth 1988

Keratoconjunctivitis sicca.

Golding T, Brennan N, Kowal L.
Med J Aust 1988 Sep 19 149:6 339-40

Botulinum toxin – the need for a controlled study.

Kowal L.
Aust N Z J Ophthalmol 1988 Nov 16:4 372

The contrast sensitivity function and childhood amblyopia.

Kowal L.
Am J Ophthalmol 1987 Dec 15 104:6 671-3

NAMED LECTURESHIPS

Trimble Memorial Lecture, British Isles.
Pediatric Ophthalmology and Strabismus Association (BIPOSA),
Glasgow, September 2009.

PAPERS PUBLISHED NON-OPHTHALMOLOGY

Contraceptive pitfalls.

Kowal, L.
Aust Fam Physician 1979 Jan 8:1 93

Non-gonococcal urethritis.

Kowal L.
Med J Aust 1978 Jul 1 2:1 30

Atopic cough in children.

Kowal L.
Med J Aust 1977 Jan 1-8 1: 41

Treatment of prodromal shingles.

Kowal L.
Med J Aust 1989 Feb 20 150:4 227-8

BOOK REVIEWS

In "Binocular Vision Quarterly" 10:No1. P59.
Review of 'Simultaneous Horizontal and Cyclovertical Surgery' by Gobin & Bierlaagh.

BOOKS

Author of Strabismus section of Post Graduate Nursing Textbook, Royal Victorian Eye and Ear Hospital.

Author of Strabismus section of World Book Medical Encyclopaedia.

"Refractive Surgery and Diplopia".
Kowal L. & Battu R.
Step by Step Lasik surgery. Chapter 13.
Ed: Vajpayee et al. 2003

CINEMA SCRIPTWRITING/ACTING

In 1986, Dr. Kowal played the role of the ophthalmologist and assisted in scriptwriting of the Paul Cox film 'Cactus' starring Isabel Huppert.

MEMBERSHIPS

1. International Strabismological Association (First Vice President 2002-2010).
2. American Association of Paediatric Ophthalmology and Strabismus (International Member).
3. European Strabismological Association.
4. Royal Australian and New Zealand College of Ophthalmologists (by Examination).
5. American Academy of Ophthalmology (International Associate Member).
6. Neuro-Ophthalmology Society of Australia.
7. Australian Medical Association.
8. North American Neuro-Ophthalmology Society.
- 8A International Relations Committee of North American Neuro Ophthalmology Society 2011-2012.
9. Foundation Member of Australasian Society of Cataract and Refractive Surgeons.
10. Member American Academy of Neurology (Neuro-Ophthalmology/Neuro-Otology section).
11. Honorary Membership Australian College of Behavioural Optometrists.

EDITORIAL PANELS

1. Former Member of Editorial Board for Australia and New Zealand for "Strabismus".
2. Former Member of Editorial Board for "Binocular Vision Quarterly".

COMMITTEES

Qualifications and Education Committee, Royal Australian and New Zealand College of Ophthalmologists.

RECENT CONFERENCE PRESENTATIONS

National Health Group Singapore. Visiting Professorship. November 2010

Live patient presentation.

Live surgery demonstration.

Lectures on:

Refractive surgery and strabismus (Plenary Lecture).

Medial rectus pulley sutures.

Congenital nystagmus.

Australia and New Zealand Strabismus Society Meeting, 5-6 March 2010, Sydney

Mitchell L, Bender L, Landa E, Mahindrakar A, Kowal L. Medial rectus pulley sutures.

Neuro-ophthalmological Society of Australia, 2-3 September 2010, Christchurch

Mitchell L, Kowal L. An unusual case of vertical strabismus.

International Strabismological Association Conference, 22-25 September 2010, Istanbul, Turkey

Mitchell L, Bender L, Landa E, Mahindrakar A, Kowal L. Medial rectus pulley sutures: Use in accommodative esotropes with convergence excess.

Mitchell L, Kowal L. Medial rectus pulley sutures: Use in spectacle-intolerant accommodative esotropes (Poster presentation).

Kowal L. Congenital nystagmus symposium.

Kowal L. Refraction symposium: Hyperopia.

RANZCO Scientific Congress, 20-24 November 2010, Adelaide, South Australia

Mitchell L, Bender L, Landa E, Mahindrakar A, Kowal L. Medial rectus pulley sutures: Use in accommodative esotropes with convergence excess.

Mitchell L, Kowal L. Medial rectus pulley sutures: Use in spectacle-intolerant accommodative esotropes.

Mitchell L, Kowal L. Aniseikonia causing diplopia: retinal and optical causes (including successful cataract surgery).

Mitchell L, Kowal L. Strabismus in the very elderly.

Mitchell L, Kowal L. Endophthalmitis as a complication of strabismus surgery: a case report (Poster presentation).

Mitchell L, Kowal L. Morning Glory disc anomaly and optic nerve coloboma in a 6 year old Caucasian female: a clue to pathogenesis? (Poster presentation).

Israeli Medical Association Meeting. Tel Aviv. March 2010

Medial rectus pulley sutures.

Congenital nystagmus.

Unusual causes of esotropia.

British Isles Pediatric Ophthalmology and Strabismus Association, Glasgow, September 2009

Acronymic Treatment of Amblyopia.

New Surgical Technologies in Strabismus.

Middle East African Council of Ophthalmology (MEACO) Meeting, Bahrain, March 2009

Update on Congenital Nystagmus.

Medial rectus pulley suture.

Consecutive exotropia.

Australian New Zealand Strabismus Society Meeting, March 2009

Medial rectus pulley suture.

Consecutive exotropia.

Symptomatic Abnormal Retinal Correspondence.
Aniseikonia causing diplopia.

Australian and N.Z. Strabismus Society Meeting 2008

Hyperopia and smoking.
Audit of superior oblique surgeries.
Medial rectus pulley sutures.
Esotropia and high plus.

RANZCO 25/11/2007 Perth

Management of consecutive exotropia in adults.

RANZCO Squint Club 2007

The Adjustable Faden.
Pulley Sutures.

International Neuro-Ophthalmology Society (INOS) XVI Meeting, Japan, 29th November – 2nd December, 2006

Strabismus it's influences upon infantile nystagmus.
Able L, Kowal L & Tkalcevic L.

RANZCO Squint Club 2006

Congenital Nystagmus – audit of eye movement recordings.
Congenital Nystagmus – audit of surgeries.
Ditropan esotropia.
A new aniseikonia test.
OCT abnormalities in amblyopia.

RANZCO National Congress 2005

Workshop in Congenital Nystagmus.
Consecutive Exotropia.
Fourth nerve palsy.

RANZCO Squint Club 2005 Meeting (Dunedin, New Zealand)

Assessment of head tilts and face turns.
Chiari malformation presenting as strabismus.

International Orthoptic Congress 2004

Seminar: Refractive Surgery and Diplopia.

POSTERS

Sensory causes of diplopia.
Poster @ Asian ARVO, Hyderabad, January 2009

Radiological evaluation of difficult strabismus.
RANZCO, Perth, November 2007

A novel approach for difficult exotropia with Drs. Yahalom, Ben Simon and Dr. Alan McNab. AAPOS meeting, Colorado, March 2006

American Association of Paediatric Ophthalmology and Strabismus 2005

Poster: Axial length measurements in strabismus.

AUDITS

2008: Superior oblique surgeries.

2008, 2009, 2010 Medial rectus pulley suture.

2007: In-office problems after adjustable sutures with 5/0 vicryl.

2007: Re-operation rates in first and second strabismus surgeries.

- 2005: 91 consecutive cases of consecutive exotropia.
- 2005: 55 consecutive cases of congenital nystagmus with eye movement recordings.
- 2005: 20 consecutive cases of phospholine use.
- 2003: 95 consecutive bimedial recession operations. Dr. Battu, March, 2003.
- 2002: Review of 50 consecutive cases of exotropia.
- 2001: Review of repeat surgeries on Ocular Motility Clinic presented to Clinical Review Committee, R.V.E.E.H, December 11, 2001.
- 1991: Personal series of 400 cases of fourth nerve palsies.
- 1993: Personal series of 100 exotropia surgeries.

REFEREE TO FOLLOWING JOURNALS

- 2009 Strabismus.
- 2008,10 British Journal of Ophthalmology.
- 2006 Archives of Ophthalmology.
- 2005,6 Journal of the American Association for Paediatric Ophthalmology and Strabismus.
- 2004,5,6,10 Clinical and Experimental Ophthalmology.
- 2002 Current Eye Research.
- 2003 Australian Family Physician.

HONORARY AWARDS

Honorary Life Membership, Australian College of Behavioural Optometrists