

# **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**

2012-current: Scientific Bureau, World Society of Paediatric Ophthalmology & Strabismus

1992-current: Senior Fellow, Department of Ophthalmology, University of Melbourne.

1991-current: Ocular Motility Clinic, Royal Victorian Eye and Ear Hospital (RVEEH) (Director since 1992).

1987: Fellow, Department of Paediatric Ophthalmology and Strabismus, Wills Eye Hospital, Jefferson Medical College, Philadelphia, PA, USA.

1987-current: Part time lecturer, Department of Optometry, University of Melbourne.

1985 – current: VMO, RVEEH [30 year certificate awarded]

## **PAPERS PUBLISHED**

### **Fixation-linked nondissociated hypotropia: a report of 3 cases.**

Matalia J, Anaspure H, Panmand P, Kowal L.

J AAPOS. 2014 Oct;18(5):498-500.

### **Assessing Abnormal Head Posture: A New Paradigm**

Halachmi-Eyal O; Kowal L,

Current Opinion in Ophthalmology 2013 Sep; Vol 24 (5), pp. 432-7;

### **Amblyopia and Foveal Thickness**

Elina Landa, Shimon Rumelt, Claudia Yahalom, Elaine Wong and Lionel Kowal

Advances in Ophthalmology, ISBN: 978-953-51-0248-9

### **Medial rectus muscle pulley posterior fixation sutures in accommodative and partially accommodative esotropia with convergence excess.**

Mitchell L, Kowal L.

J AAPOS. 2012 Apr;16(2):125-30. doi: 10.1016/j.jaapos.2011.11.013.

### **Tratamiento quirurgico del Síndrome de Duane Bilateral**

De Laino R.; Kowal L; Putterman A; Romero Apis D; Scott A B; Velez F

Acta Estrabologica. Vil XL, No. 1, 2011. Pp 89-96

### **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.**

Kloppogge 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

**Cirurgia 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 1<sup>st</sup> 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 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.
12. International Thyroid Eye Disease Society.

#### **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.

Scientific Bureau, World Society for Pediatric Ophthalmology and Strabismus [WSPOS]

#### **RECENT CONFERENCE PRESENTATIONS [last 3 years]**

##### **2016**

Joint Conference of: American Association for Pediatric Ophthalmology and Strabismus (AAPOS) and Strabismus and Pediatric Ophthalmological Society of India (SPOSI), Jaipur, December  
The following have been accepted:

Oral presentation:

Eye movement recordings for childhood onset nystagmus – When you don't need them, with Drs Sheth, Kini, Zipori

AAPOS [American Association for Pediatric Ophthalmology and Strabismus. Vancouver meeting. April.

Presenter: Difficult problems in Strabismus workshop. Adjustable inferior oblique surgery.

Presenter: Strabismus XXL workshop: Large angle consecutive strabismus

ANZSS, Australian & New Zealand Strabismus Society, Melbourne, March

1. Seminar on Infantile Nystagmus with Dr Larry Abel
2. Genotype/ phenotype associations in Duane's Syndrome with Sandra Stafferi and Wendy Marshman
3. Case report: bilateral 4ths, with Dr Shiva Sheth

4. Botulinum & Bupivacaine injections for strabismus, with Drs Kini and Scott
5. Latrogenic 6<sup>th</sup> nerve palsy, with Dr Dina Sayed

## **2015**

World Society for Pediatric Ophthalmology and Strabismus [WSPOS], Barcelona, September 2015

1. Keynote presentation : Becoming a better strabismus doctor: Always learning, always improving. Usually humble, often humbled.
2. How eye movement recordings have and have not helped me in managing childhood nystagmus
3. Workshop: I wish I hadn't done that
4. Strabismus surgery in myopia

'Straight Eyes for the little guys': Children's Hospital New Orleans, LSU Eye Center March 25  
Surgical technique for rectus resection and plication

AAPOS [American Association for Pediatric Ophthalmology and Strabismus. New Orleans meeting, March

Presenter: Adult strabismus workshop.

1. Huge ET with Bilateral 6ths. When Superior Rectus Transposition doesn't work.
2. Video: a technique of rectus plication

ANZSS, Australian & New Zealand Strabismus Society, Brisbane, March

1. Eye Movement Recordings in Nystagmus with Drs Zipori and Abel
2. New Causes of diplopia
3. New amblyopia treatments with Dr Kini
4. Rectus plication with Dr Sheth

## **2014**

RANZCO [Royal Australian NZ College of Ophthalmology] Scientific Congress, Brisbane , November

1. Seminar on Strabismus. Thyroid eye disease
2. Diplopia in Childhood
3. Why does BMR fail? An audit of 200 cases, with Dr Zipori

ANZSS, Australian & New Zealand Strabismus Society, Sydney, March

1. Why does BMR fail? An audit of 200 cases, with Dr Zipori
2. Case presentation: Nystagmus
3. Case presentation: Duane's

Australian College of Optometry Annual Refresher series, April

- 1) Prematurity - What happens to the Visual system later in Childhood:
- 2) Nystagmus with highly specialised needs
- 3) Down's Syndrome: ophthalmic overview
- 4) Paediatric conjunctivitis

Jules Stein Eye Institute [UCLA]

Leonard Apt Meeting: Advanced Topics in Pediatric Ophthalmology and Strabismus Workshop, April 1

Presenter: Head tilts and tips in strabismus

## **POSTERS**

Joint Conference of: American Association for Pediatric Ophthalmology and Strabismus (AAPOS) and Strabismus and Pediatric Ophthalmological Society of India (SPOSI), Jaipur, December

The following have been accepted:

E-posters, with Dr Kini

1. Botox with Bupivacaine to treat consecutive exotropia
2. Treatment of inferior division 3<sup>rd</sup> n palsy



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

### **AUDITS**

2014: 50 consecutive cases of infantile nystagmus

2014: 200 consecutive cases of Bimedial Recession

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: 119 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 [in last 5 years]**

Strabismus.

British Journal of Ophthalmology.

Archives of Ophthalmology.

Journal of the American Association for Paediatric Ophthalmology and Strabismus. [Awarded 'Certificate of Outstanding Contribution in Reviewing', June 2016]

Clinical and Experimental Ophthalmology.

### **HONORARY AWARDS**

Honorary Life Membership, Australian College of Behavioural Optometrists