



THE UNIVERSITY OF
MELBOURNE

Department Newsletter

October 2015

Optometry & Vision Sciences



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If you have any suggestions or items for the next newsletter, please email:

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Items need to be submitted by
February 28th 2016



Head's Report

A/Prof Allison McKendrick

Time passes quickly. We have reached the end of October, the year is drawing to a close, and our students are commencing exams. Our OD4 students are busy finalising their portfolios and are looking forward to life beyond graduation.

The department has now been housed in the Melbourne School of Health Sciences (within the Faculty of Medicine, Dentistry and Health Sciences: MDHS) for 10 months. This newsletter illustrates some of the new interprofessional practice teaching and learning initiatives that our students are enthusiastically embracing within our new faculty. Our OD students are now participating and playing leading roles in committees with other aspiring health professionals, and have joined in the MDHS Teddy Bear Hospital (see page 6). Modern healthcare increasingly demands interactions between the various health professions, and promoting these while at university provides a strong framework for our graduating optometrists to carry through their professional careers.

A further benefit of our repositioning within the university is the potential to extend our collaborative research networks through improved visibility of the department on campus. This is facilitated by our physical presence on campus in both the Alice Hoy building and the Kenneth Myer Building (the flagship facility of the Melbourne Brain Centre), as well as our facilities at UM Eyecare and the NVRI. Additionally, the process of moving from the Faculty of Science to the Faculty of MDHS has enabled us to showcase the value of our Department to a wide range of new stakeholders across the University and beyond.

This newsletter also highlights some of our recent collaborative efforts in research and teaching in collaboration with the Elite School of Optometry and Medical Research Foundation (MRF), Chennai, India. The MRF is a leading teaching hospital and research facility in India. We have previously reported on the Memorandum of Understanding between the University and the MRF (signed in January 2015, facilitated by DOVS), and it is extremely pleasing to see concrete evidence of increased collaboration through visiting research fellows, conference presentations, as well as a lecture via Skype to our OD students from the Principal of the Elite School, Dr Krishna Kumar, on the topic of Occupational Optometry.

As always, we welcome visits to the department from our alumni and friends. We also welcome any feedback regarding our programs. We hope you enjoy reading this latest newsletter.

Staff News

On Tuesday 12th May 2015, Dr Laura Downie and A/Prof Peter Keller hosted an educational seminar at the University of Melbourne to launch a new Clinical Care Audit Tool (CCAT) for optometrists.

We were delighted to welcome 100 attendees to the event, many of whom are alumni of the University. The CCAT was developed with the support a Victorian Optometrists Training and Education (VOTE) grant, and allows practitioners to audit their clinical practices in relation to eye care provided to patients with diabetes.

The CCAT, and instructions on how to use it, are available for free download on the DOVS website: <http://www.optometry.unimelb.edu.au>.



The Department's Laura Downie recently returned from New York, having participated as an invited expert for the International Dry Eye WorkShop II (DEWS II) – Management and Therapy subcommittee meeting. This global initiative, which runs for the next two years, will provide an update to the original DEWS systematic reviews, which are currently used throughout the world.



Dr Nivedita Chatterjee from the Vision Research Foundation, Sankara Nethralaya Eye Hospital and the Elite School of Optometry in Chennai has been welcomed by the Department. She has spent the month of October working with Dr Bang Bui on understanding the pathogenesis of diabetic retinopathy.

She is funded by an Australian Award Fellowship from the Australian Department of Foreign Affairs and Trade.

Staff News

Anthea Cochrane, Andrew Metha and Allison McKendrick visited Chennai for the Elite School of Optometry's International Vision Science and Optometry Conference. The conference ran over three days and involved over 1200 delegates. Both Allison and Andrew spoke as key note speakers on behalf of the University. An information session was also conducted focussing on optometry opportunities throughout the world. The trip also gave Allison, Anthea and Andrew a chance to see where our students go for their placements as well as the school and hospital setup in Chennai.



On Thursday 8th October 2015, World Sight Day, the Macular Disease Foundation Australia announced the recipients of their 2016 Research Grants at a special event hosted by The Governor-General, His Excellency General the Honourable Sir Peter Cosgrove, AK MC (Retd), at Admiralty House, Kirribilli, Sydney.

The Department's Dr Laura Downie, together with a team of researchers comprising of Dr Lauren Ayton, Professor Robyn Guymer, A/Prof Peter Keller and Professor Algis Vingrys, was awarded a Blackmores Macular Disease Foundation Australia Grant for \$100,000 over three years. The project is entitled "Advancing eye care for people with age-related macular degeneration (AMD) through integrating clinical research and its translation."

The project seeks to advance the standard of eye care for Australians with AMD. The aim is to improve the clinical care provided to people with AMD, through a program that enhances the translation of research evidence into every day clinical practice. The project will involve both the development of a novel optometric clinical audit tool, to allow clinicians to assess the quality of eye care that they provide to people with AMD, and the delivery of a national education program to upskill practitioners on contemporary research evidence relating to AMD clinical diagnosis and evidence-based management. We anticipate that this will lead to immediate, tangible improvements in the provision of eye care to Australians with AMD.



Engagement

The 20, 30 and 40 year reunions for the classes of 1995, 1985 and 1975 were held In June. These reunions enabled the classes a chance to view our new on-campus training facilities, our expanded UM Eyecare clinic, and some of our research laboratories engaged in the science that drives optometry's future. The classes were then able to share the unique stories and memories of their time with the University over dinner. The reunions are an important part of the Department's engagement with our alumni and will continue in future. A thank you must go out to Bang Bui, Tom Cougan, Daryl Guest and Andrew Anderson for their assistance organising and facilitating these reunions.



The Class of 1995 Reunion held on June 11th.



The Class of 1985 Reunion held on June 16th.



The Class of 1975 Reunion held on June 18th.

Teaching & Learning

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The second annual OD student conference took place on September 26 and 27. The program was devised by the student body and included a range of topical lectures and seminars on issues of relevance to contemporary optometry from invited speakers, as well as presentations of research projects by the OD2 student cohort.

Congratulations to our students for the quality of the program they put together and the professionalism they showed over the weekend. Well done to the conference convenors and their committee for a job well done!



The University of Melbourne and the Department of Optometry and Vision Sciences together with the University of Melbourne Early Childhood Learning Centre have been working together to provide our third year Doctor of Optometry students with an opportunity to interact with young children through the provision of vision screenings for the children conducted at the Centre. Each family participating in the vision screening receives a written report of their child's vision.



Teaching & Learning

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The Interprofessional Education and Practice Health Students' Network (IPEP HSN) is a student led initiative which is the first of its kind in Australia. The network aims to unite students from allied health disciplines in order to achieve more efficient and complete patient care.

The first two IPEP HSN seminars of 2015 were centred around cultural competency and communication with different populations. Auslan interpreter Dr Meredith Bartlett spoke about communication with deaf and speech impaired patients, language interpreters Lile Blazevska and Patricia Tissera from Western Health spoke about the best way to communicate with non-English speaking patients in a clinical setting, and paediatrician Dr Fiona Brown and paediatric optometrist Christine Nearchou spoke about the fine art of communicating effectively with children.

OD students Felix Tam, Kyra Stretton, Richard Pryor, Sarah Case, Alex Kaye and Erica Barclay were involved in the committee, and are enthusiastic about educating fellow allied health students about optometry and learning about other disciplines.



On August 1st and 2nd the Royal Children's Hospital and MDHS Teddy Bear Hospital Team ran a winter check-up at Chadstone Shopping Centre. The students were kept quite busy helping all the children with their teddy's vision and eye problems.

The sessions were a great success. A thank you must go out to our students as well as the other students from the Faculty of Medicine, Dentistry and Health Sciences for getting involved in this event and for giving their time over the weekend.



UM Eyecare

Daryl Guest

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DOVS is collaborating with Professor Robyn Guymer in the establishment of a TRRRiC clinic at UMeyecare. As is well known to the optometry community, Professor Guymer is a world leading expert in the assessment and treatment of macular degeneration, particularly in the early stages of the disease. She is currently chief investigator in a number of trials researching the assessment and treatment of macular degeneration with the Centre for Eye Research Australia (CERA). The concept of the TRRRiC (Treatment Ready Research Ready eye Clinic) clinic is to provide assistance in the assessment and management of optometrists' patients with macular degeneration in early/intermediate stages and with geographic atrophy. In addition, patients will be identified for current and upcoming research trials on intervention. Robyn's work is focused on patient's without CNVM's.

The initial clinics having been running on Thursday afternoons under the supervision of Dr. Lauren Ayton and Associate Professor Peter Keller. Lauren and Peter are both optometrists who are involved in projects with Professor Guymer at CERA. The first patients have come from the pool of patients known to CERA, but as the TRRRiC clinic becomes established we will be looking for referrals from optometrists.

The TRRRiC clinic offers access to cutting edge understanding, investigation and assessment of macular degeneration in its early stages and of geographic atrophy. One of the drivers for the establishment of TRRRiC is that most early stage macular degeneration patients are attending optometry practices. It is those patients that are of research interest to Professor Guymer's studies. The clinics will gain valuable clinical research data and also categorize patients for future research. This may include novel interventions.

It is not the intention that the TRRRiC clinics will take over the optometric care of the patients. TRRRiC will only assess the patient's macular degeneration and will help the optometrist in their ongoing care by providing regular comprehensive reports of its findings in this area. OD4 students are helping collect the clinical data under the tutelage of Lauren and Peter. As part of the TRRRiC at UMeyecare Robyn has also been providing tutorials to the OD4 students on current understanding of macular degeneration and on the new interventions that are being researched.

TRRRiC at UMeyecare will be looking for referrals soon and we will be advising optometrists as to the types of patients that are suitable, how to make referrals and the journey that the patient will go through.



Professor Guymer presenting to OD4's on interpreting OCT findings

Research & RHD Matters

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Departmental & Staff Publications (August 2015 - September 2015)

⇒ **Comparison of Three Parametric Models for Glaucomatous Visual Field Progression Rate Distributions.**

Anderson AJ.

Transl Vis Sci Technol. 2015 Jul 31;4(4):2.

The distribution of visual field progression rates differs between different study populations, although the "average" distribution can be well modeled and may be of use in improving glaucoma progression estimates.

⇒ **Contrast-based sensorless adaptive optics for retinal imaging.**

Zhou X, Bedggood P, Bui B, Nguyen CT, He Z, Metha A.

Biomed Opt Express. 2015 Aug 26;6(9):3577-95. 1.

High-resolution AO imaging of small eyes is frustrated by standard wavefront measurement difficulties due to retinal thickness. Large-scale image quality information can be used instead to drive wavefront error correction.

⇒ **Saccade-induced image motion cannot account for post-saccadic enhancement of visual processing in primate MST.**

Cloherty SL, Crowder NA, Mustari MJ, Ibbotson MR.

Front Syst Neurosci. 2015 Sep 1;9:122.

We found neural responses in MSTd were enhanced when preceded by real saccades but not simulated saccades. We conclude that in MSTd the mechanism leading to post-saccadic enhancement has internal origins.

⇒ **Prosthetic vision: devices, patient outcomes and retinal research.**

Hadjinicolaou AE, Meffin H, Maturana MI, Cloherty SL, Ibbotson MR.

Clin Exp Optom. 2015 Sep;98(5):395-410. Review.

We review the structure and function of normal and degenerate retina, the different approaches to prosthetic implant design, and the electrical properties of the retina and its response to electrical stimulation.

⇒ **Spatial phase sensitivity of complex cells in primary visual cortex depends on stimulus contrast.**

Meffin H, Hietanen MA, Cloherty SL, Ibbotson MR.

J Neurophysiol. 2015 Sep 16;jn.00431.2015.

Complex cells in supragranular layers of cat cortex have dynamic spatial summation properties, and that the mechanisms underlying complex cell receptive fields differ between cortical layers.

Research & RHD Matters

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Departmental & Staff Publications cont.

⇒ **Self perception and facial emotion perception of others in anorexia nervosa.**

Phillipou A, Abel LA, Castle DJ, Hughes ME, Gurvich C, Nibbs RG, Rossell SL.

Front Psychol. 2015 Aug 10;6:1181.

Using a gaze tracking experiment, people with anorexia nervosa were found to 'hyperscan' stimuli and avoided visually attending to Salient features of their own face images

⇒ **Customizing Structure-Function Displacements in the Macula for Individual Differences.**

Turpin A, Chen S, Sepulveda JA, McKendrick AM.

Invest Ophthalmol Vis Sci. 2015 Sep 1;56(10):5984-9.

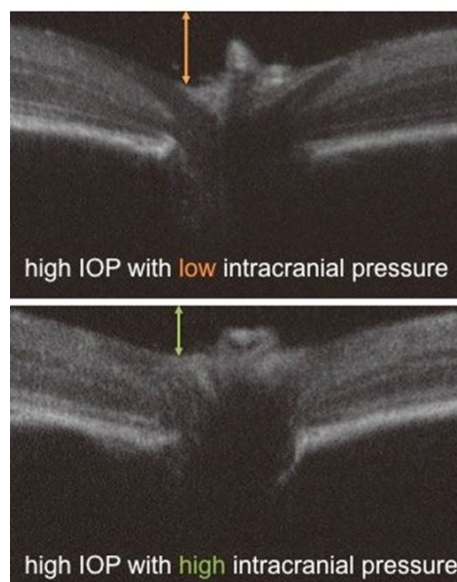
In the macula, retinal ganglion cells are displaced from their receptive fields, potentially influencing structure-function mapping in the central visual field. This paper examines individual variation in this mapping.

⇒ **The effect of intraocular and intracranial pressure on retinal structure and function in rats.**

Zhao D, He Z, Vingrys AJ, Bui BV, Nguyen CT.

Physiol Rep. 2015 Aug;3(8).

This study shows that alterations to intracranial pressure have more substantial effects on retinal structure and function than intraocular pressure. This highlights the need to consider additional risk factors in glaucoma.



FREE Optometry Australia-accredited CPD event – RSVP NOW!

Launch of a new clinical smoking behaviour tool for optometric practice

6 Therapeutic Points

The evidence is clear that smoking is a major modifiable risk factor for eye disease. As optometrists, we know we should routinely ask our patients about their smoking behaviours, but what are the key questions to ask?

The Department's Dr Laura Downie and A/Prof Peter Keller are hosting a free workshop for optometrists to launch a newly-developed quantitative clinical smoking behaviour tool for optometrists, to make this process easier.

The tool allows optometrists to quickly and accurately capture key information about patient smoking behaviours, and features an evidence-based summary table to stratify patients' associated risk of long-term eye disease.



This workshop will guide you through how to implement this tool into your daily practice, so as to promote discussion about patient smoking status and the benefits of smoking cessation. The workshop will explore the practical utilisation of the tool, using a series of clinical case scenarios. The clinical tool, and accompanying documentation detailing its use, will be published on the Department website for free download.

When: Wednesday 11th November 2015

Time: 6.30pm – 8.30pm

Where: The University of Melbourne, Parkville

(Exact venue to be advised)

Cost: Free

CPD: 6 therapeutic CPD points

Refreshments and light finger-food will be provided.

Please note that numbers are strictly limited, so please RSVP early to reserve your place, by contacting Laura Downie (ldownie@unimelb.edu.au).

This workshop has been supported by a 2015 University of Melbourne Engagement Grant.



Student News

UMOSS

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October has been a very exciting month! We had our biggest annual EyeBall to date at Zinc, Federation Square, with optometry students sharing a fantastic evening with staff and sponsors at the masquerade-themed event. A big thank you goes to all our



sponsors who provided generous support to make the running of this event possible.

World Sight Day was on the 8th of October this year. In order to fundraise for WSD, a Comedy Night was held at The Comics Lounge, with all proceeds from ticket sales going toward the charity. The annual

WSD Bake Sale was also held to raise awareness and support for WSD. Students from all year levels contributed by baking and selling delicious goods. OD alumni Chloe Stucki helped to support the fundraiser by donating a hamper for a raffle ticket draw. Through these efforts, we managed to raise a total of almost \$2000!

Our OD1 reps remarked that this year has been a challenging yet exciting start as post-graduate students. Highlights included presenting fusion posters at the ODSC, attending IPEP seminars, exposing themselves to the OSCE environment by volunteering as patients, and learning about specialities at events such as the ACBO information night. In addition, they joined together in a 5km Nike run and made use of their UMOSS membership card deal at Tsubu Bar to bond with the cohort.



On campus, the OD2s are staying busy from research projects to UME consults with their OD4 peers. They kicked things off with a pizza luncheon and successful Wednesday Workshop with OD1s through the Big Brothers/Big Sisters program. Known for being a tight-knit and supportive cohort, they have kept close to each other by organizing a day spent at the park, dinners, karaoke, and nights out on the town. Some groups even travelled during their breaks to Torquay, Mount Buller, Gold Coast, Sydney, and Bali!

OD3s are no less busy in semester 2, starting three weeks early and completing three days of metropolitan placement, as well as clinical sessions at UME and ACO. They are building on their knowledge through lectures on diseases, neuroscience, low vision, and professional practice, as well as through discussion panels and ophthalmology seminars for insights into some of the rarer cases they may encounter. Once again, they participated in the winter debut of the Good Friday Appeal's Teddy Bear hospital. The class is eagerly awaiting for their overseas and rural placements next year. They would also like to thank the OD4s for their support and mentoring over the years, and hope to be able to fill in the big shoes next year!

OD4s have all returned from their overseas externships and are making a final effort to pull together their portfolios. It has been wonderful to see new initiatives such as RMH@UME and the TRRRiC clinic coming to a success this year.

We would like to congratulate the upcoming UMOSS committee for 2016.

President	Kyra Stretton
Vice President	Nuwan De Silva
Treasurer	Danielle Di Pasquale
Education officer	Andri T
Social officer 1	Laurence Fusillo
Social officer 2	Jenny Chen
Social officer 3	William Yip



As the year draws to an end, a wholehearted thank you is in order on behalf of the final year students to our beloved lecturers, clinical teaching instructors, and department staff, who have guided us on our journey these past few years, shaped us into the competent clinicians that we are today, and inspired us to become the future leaders of optometry.

Thank You to Our Sponsors/Donors

The Department is grateful to the various companies for their generous donation and continued support of our student learning in the preclinical teaching space:

Designs for Vision – PD rulers, Diagnostic sets, Keeler equipment cases

Device Technologies – Heine Wireless BIO

Optimed – Ocular Fundus and BIO Lenses, Gonioprisms

Welch Allyn – Diagnostic sets and PanOptic Ophthalmoscopes including iExaminer

Shane Debney Eyecare Plus Eltham - second hand retinal camera

In addition, we would like to thank **Bob Tupper** for his continued and ongoing support of Trichur Vidyasagar's research lab.

A big thank you to all.