

Annual Report 2018



School of
Optometry and
Vision Science







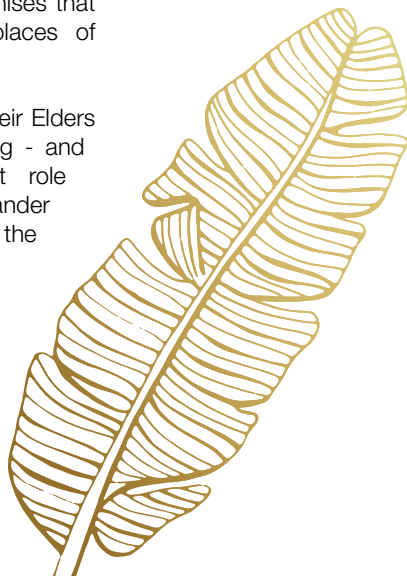
Table of *Contents*

Acknowledgement

of Traditional Owners

The QUT School of Optometry and Vision Science acknowledges the Traditional Owners of the lands where QUT now stands, and recognises that these have always been places of teaching and learning.

We wish to pay respect to their Elders - past, present and emerging - and acknowledge the important role Aboriginal and Torres Strait Islander people continue to play within the QUT community.



Message from Head of School	04
Celebrating 50 Years	06
Academic Staff	10
Adjunct Academic Staff & Visiting Fellows	12
Teaching & Learning Highlights	13
Master of Optometry Student Research Projects	18
Student Awards	20
Student Clinic Highlights	22
Research Highlights	24
Research Visitors	29
Grants	30
Peer-Reviewed Articles in Scholarly Journals	32
Books & Book Chapters	38
Presentations at Conferences	38
Presentations at Seminars	46
Higher Degree Research Completions	47
Awards and Promotions	48
Vale Brian Brown	50
Staff	52
Supporters	54

Message from Head of School

Professor Sharon Bentley



The School of Optometry and Vision Science, Queensland University of Technology (QUT) had another very successful year in 2018, with multiple achievements and a major celebration.

We celebrated our Golden anniversary, 50 years of optometry graduates. The first graduates, a class of just four, Colin Waldron, Heather Waldron (OAM), Jennifer Bevan and Graham Cooper, along with past Heads of School, Emeritus Professor Ken Bowman (AM), Emeritus Professor Leo Carney and Associate Professor Peter Hendicott joined members of the profession, staff of the School and new graduates to celebrate at an enjoyable evening event generously hosted by our

professional organisation, Optometry Queensland and Northern Territory. Our first graduates spoke passionately about the early days of optometry, the ongoing advancement of the profession and scope of practice, the fight to gain the rights to prescribe medications for the treatment of eye conditions and the tremendous advances in diagnostic imaging technology.

In 2018, we worked diligently throughout the year to ensure our current students have a strong foundation in the sciences, are trained in evidence-based practice, are immersed in real-world clinical placements with cutting edge technology (both locally and overseas), and are collaborative and community minded. Our students and clinical supervisors provided 6,789 consultations at our QUT Optometry Clinic, an increase in 17% from 2017, with the service now operating throughout the year. We embedded a 'Patients as Partners' program, developed a 'Student Peer Support' program and re-invigorated our partnership with the Institute for Urban Indigenous Health.

The School's research was rated 'above world standard' In the Australian Research Council Excellence in Research for Australia (ERA) 2018 rankings. Our research in the fields of myopia, contact lenses, anterior eye, optics, imaging of the eye, melanopsin function, and the impact of vision loss on night driving attracted substantial funding from the Australian Research Council and industry. Six PhD students graduated, with two nominated for an 'Outstanding Thesis Award'.

We look forward to the next 50 years. With continuing rapid advancements in treatments and technology, we believe we are on the brink of enormous and exciting changes in the profession of optometry. This will not be limited to how we treat eyes and vision, but how we work and collaborate with others to provide efficient, person-centred services to all, in any location. Regardless of the transformations in technology and health service systems, we will need to care. Indeed, the need to care will deepen.



*Celebrating 50 years
of the QUT School of Optometry
and Vision Science, the first 1968
graduating cohort at the Optometry
Queensland and Northern Territory
'Visionaries Awards Night'.*



*Pictured L-R:
Jennifer Bevan, Heather Waldron,
Graham Cooper, Colin Waldron.*

Our School is striving to shape the future through our research and through preparing the next generation of optometrists. This cannot happen without a highly skilled and conscientious team, and many generous supporters. We are deeply grateful to our clinical supervisors, clinical placement providers, patients, research funding organisations, award sponsors and donors.

On a personal note, my first year at the School, and QUT more broadly, has been immensely rich and rewarding. I cannot thank my colleagues and students enough for their warm welcome and dedication to our work.

Sharon J. Bentley



Celebrating 50 Years



(Above) Noel Verney.

(Right) Ken Bowman.



*L-R: Graham Cooper, Heather Waldron,
Jennifer Bevan and Colin Waldron.*



In 1965 the Queensland Institute of Technology (QIT) began an optometry program. This was a three year full-time optometry diploma under the leadership of Noel Verney, the new head of the Section of Optometry. Noel Verney was born in 1921 and attended high school at Brisbane Grammar School and trained as an optometrist at the Central Technical College in Brisbane before the Second World War. During the war, Noel was an aircraft navigator and was awarded the Distinguished Flying Cross for his service in Burma. Following the war, he travelled to the United Kingdom to further his optometry education. He led the optometry school at QIT until 1980 and has had a lasting impact on the development of the profession of optometry in Queensland.

The first cohort of undergraduate optometry students at QIT (Graham Cooper, Heather Waldron, Jennifer Bevan and Colin Waldron) began their studies in 1966 at the Gardens Point campus. The course had a strong emphasis on developing clinical skills

in the QIT Optometry Clinic, located in the basement of U Block. The first QIT graduates completed their Diploma of Optometry in 1968.

Ken Bowman came from the University of Melbourne to be the new Head of the Optometry Department at QIT in 1980. He set about recruiting new academic staff, building a strong research culture within the department, establishing the Centre for Eye Research, and working with the profession and QIT management to enhance and develop the department. The optometry program at QIT graduated its first students from the four year BAppSc (Optom) degree in 1984 and in 1989, Ken oversaw the move of the department and clinic to the Law building (C Block) on Gardens Point campus, with a dedicated wing of research and teaching laboratories. In 1989 QIT became QUT and in 1991, Ken went on to become the Dean of the Faculty of Health, and in 2008 the Deputy Vice-Chancellor (Academic) of QUT.



Leo Carney.

In 1992, Leo Carney became the new Head of Optometry at QUT after previous appointments at Ohio State University and the University of Melbourne. Leo oversaw the move of the Optometry Department and Clinic to the Kelvin Grove campus of QUT. Over the next 16 years he continued to strengthen the research profile of the school, transitioning from the Centre for Eye Research to the Vision Domain of the Institute for Health and Biomedical Innovation.

He was instrumental in advancing the optometry program to the five year double degree (BVisSc and MOptom) program to include the teaching of therapeutics and strengthening the clinical experiences of students in the program. Leo was responsible for overseeing the development of the Optometry Clinic in the current QUT Health Clinics complex at Kelvin Grove.

His strategic leadership built a strong relationship with the profession and an excellent international reputation for the school.



In 2008, the QIT graduate Peter Hendicott became the Head of the School of Optometry and Vision Science after previous roles as Head of Optometry in Dublin, and clinic director at the University of Auckland and Hong Kong Polytechnic University. Peter oversaw the transition to the five year double degree program and the strong development of the research performance of the school over the next 10 years, with growing numbers of full-time researchers and higher degree research students in the school. Peter's background in clinical management saw the schools clinical program develop an emphasis on the diversity of student's clinical experiences and training.

Sharon Bentley became the first female Head of the School of Optometry and Vision Science in 2018, after academic appointments at The University of Melbourne, Dalhousie University, Deakin University and an executive appointment at the Australian College of Optometry. Sharon has brought a very strong



*Pictured T-B:
Peter Hendicott.
Sharon Bentley.*

background in clinical teaching and management, research and curriculum development to QUT.

When asked about the changes over the years, Emeritus Professor Leo Carney reflected that, "The past 50 years of optometry education at QIT and QUT have seen an impressive development in teaching and research along with the expanding scope of clinical practice of the optometry profession. With the current developments in the ongoing integration of optometry as a primary health-care provider, together with impressive technology changes, it is likely that the pace of change in our profession and the education of optometrists will also continue in the future."

Over 50 years of development and the leadership of five heads of school, the School of Optometry and Vision Science at QUT has achieved great success in teaching, research and service to the community. It continues to build upon this legacy of achievement.

Head of School, Emeritus Professor Ken Bowman (back row, fourth from left) with staff. Back row from left: Michael Collins, David Atchison, Peter Swann, Ken Bowman, Brian Brown. Front row from left, Jan Kitchin, Jennifer Bevan, Joanne Wood.



References:

Carney LG. *Profile: Kenneth J Bowman AM*. Clinical and Experimental Optometry 2009; 92(2): 159-162.

Efron N. *Profile: Professor Emeritus Leo G Carney*. Clinical and Experimental Optometry 2010; 93(2): 105-108.

Swann PG. *Profile: Vernon Noel Verney*. Clinical and Experimental Optometry 2001; 84(4): 205-206.

Cole BL. *A history of Australian optometry*. Australian College of Optometry 2015.



Academic Staff



Lecturer
Dr Prakash
Adhikari



Lecturer
Dr Alex Black



Professor
David Atchison



Senior Lecturer
Dr Andrew
Carkeet (*Director
of Postgraduate
Research*)



Professor
Sharon Bentley
(*Head of School;
Director of
Academic
Programs*)



Professor
Michael Collins



Lecturer
Dr Katie Edwards
(School Research
Ethics Advisor)



Associate
Professor Katrina
Schmid (*Director
of International
Engagement
and Recruitment;
Course Coordinator
Bachelor of Vision
Science*)



Professor
Joanne Wood



Lecturer
Dr Shelley Hopkins

Associate
Professor
Stephen Vincent
(*Course
Coordinator
Master of
Optometry*)



Associate
Professor
Scott Read
(*Director of
Research*)



Associate
Professor
Ann Webber



Associate
Professor
Andrew J. Zele

Adjunct Academic Staff and Visiting *Fellows*



Dr Julie Albeitz



Dr Kate Gifford
(QUT Young
Alumnus of the
Year 2017)



Emeritus Professor
Leo Carney DSc
(QUT)



Associate
Professor Peter
Hendicott



Emeritus Professor
Nathan Efron AC



Professor
Mark Radford

The QUT School of Optometry and Vision Science offers the only Optometry program in Queensland. Our students are some of the brightest, requiring an OP1 or equivalent to enter and undertake a challenging five-year program comprising the Bachelor of Vision Science followed by the Master of Optometry leading to registration as an Optometrist in Australia. Our incredibly dedicated academic staff and sessional clinical supervisors have consistently won teaching and professional awards.

In 2018 we introduced a new unit into the first year of the program, 'Foundations of Optometric Practice', reviewed our curriculum on cultural safety and Indigenous knowledge, introduced more online flexible learning in 'Research and Evidence-Based Optometry' and developed a student peer support program.

Students had the opportunity to undertake local clinical placements in optometry practices, ophthalmology practices and at the Institute for Urban Indigenous Health, as well as international



Teaching & Learning

Highlights

clinical placements in Canada (University of Waterloo), Hong Kong (Hong Kong Polytechnic University), India (LV Prasad Eye Institute) and Mexico (Volunteer Optometric Services to Humanity), some supported by Endeavour Leadership Program scholarships.

A highlight was the renewal of our student exchange program Memorandum of Understanding with the School of Optometry at the Hong Kong Polytechnic University.

Forty-nine students graduated from the Bachelor of Vision Science course and sixty one graduated from the Master of Optometry course.

Bachelor of Vision Science *Graduates*

Ahmad Ismael Sorefan
Celine Tran
Chaeyoung Lee
Dalena Do
Dinh Minh Chau Phan
Emily Margaret McIntyre
Emma Haley
Jamie Chi Bao Dang
Ji Hye Kim
Katherynn Villamizar Pinilla
Lauren Margaret Whittle
Roderick Campbell Robertson
Shiyi Chen
Steven Le
Tram Mai Tran Le
Tzu-Ching Lin
William Blair D'renzy Donelly
Yi-Chun Hsieh
Yi-Tse Kuo
Yutong Yang





Master of Optometry *Graduates*

Beom Seok Oh
Brian Toh
Bruce Shang-Yu Kuo
Chen-Pang Chiang
Chia-Jun Tu
Edward Wonjae Lee
Kerrin Jia Qian Duong
Lina Go
Ming Gu
Po-Yen Chen
Samuel Shiu Chung Lay
Sang Nhat Dinh

Abby Lee Ussher
Amy Nhi Y Tran
Annie Luu
Ashleigh Jade Casey
Chia-Chen Tsai
Danica Hua Liu
Grace Kai-Ting Lee
Huu My Phuong Nguyen
Ingrid Lok-Yun Ng
Jacinta Lok
Janessa Amy Kimlin
Jenna Leigh Truong
Jia Hao Ng
Jia Sheng Choo
Joshua Brent Johnstone
Joy Chen

with Distinction
with Distinction
with Distinction
with Distinction
with Distinction
with Distinction
with Distinction
with Distinction
with Distinction
with Distinction
with Distinction
with Distinction
with Distinction
with Distinction
with Distinction
with Distinction

Annual Report 2018 *Celebrating* 50 years | 17

As part of the Master of Optometry program, all students undertake a 12-month research project. The following projects were led by academic staff members:

David Atchison, Katrina Schmid, & Kate Gifford: Impact of contact lenses for myopia on refraction measures
Students: Joshua Collins, Clare Maher, Riya Makan, Thi Kim Phung Nguyen, Gemma Parmenter, Bronte Rolls, Xinyue (Sevanna) Zhang

Alex Black & Joanne Wood: Night-time conspicuity of pedestrians
Students: Jami Bashar, Jacqui Clow, Brittany Darbyshire, Liam Grouhel, Chih - Ling Hsu, Ka - Man Tse, Ming Wei Alger Yeo

Andrew Carkeet: Acuity, refraction and biometry: Correlation in 4-year old children
Students: Alicia Bingham, Heidi Lee, Emily Major, Lisa Ogi, Preyanka Sivasuthan, Henriette Warnken

Michael Collins & Alyra Shaw: Cornea and eyelid sensitivity and rigid contact lens awareness
Students: Jia Lin Koh, Yong Fun Annabel Kwok, James Lee, Leo Liu, Jordan Marr, Sungwoo Son

Katie Edwards & Luisa Colorado: Dry eye disease in women: Influence of somatosensory function
Students: Woori Cho, Anna Hua, Colleen Lam, John Le, Yue Ma, Narae Park, Jennifer Tran

Scott Read & Samaneh Delshad: Factors affecting short-term variations in axial length
Students: Thi Le, Jamie Nguyen, Jessie Phan, Anita Tran, Bao Tran, Cindy Tran, Thu Tran

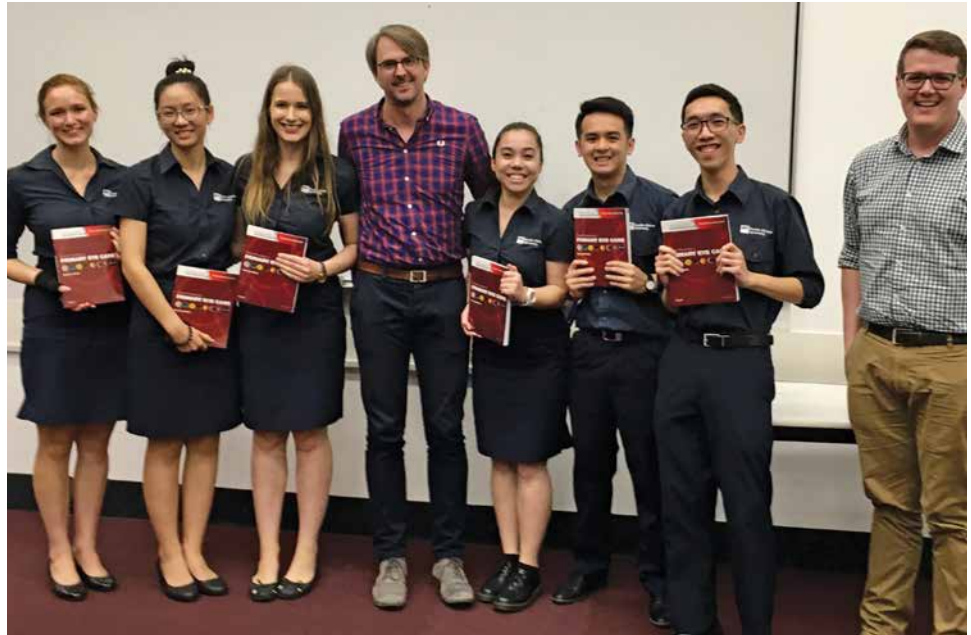
Katrina Schmid & Kate Gifford: Impact of variable focus contact lenses for myopia on binocular vision
Students: Patrick Chan, Benjamin Christie, Sarah Crouther, Olivia Nahuysen, Kristina Sechenova, Laura Sevil, Marlin Youssef

Stephen Vincent: The corneal response to scleral contact lens wear
Students: Samuel Cheung, Annabel Cristaldi, Amy Johnson, Zoe Logan, Anthony Than, Lynda Tran

Ann Webber: New binocular test of suppression
Students: Hannah Kamgarpour, Caitlin Kindness, Thomas Mandall, Darcy Molloy, Prajna Vidyasagar, Chin Song Yek, Eugenie Zhan

Joanne Wood & Alex Black: Safe street crossing decisions
Students: Thanh Bui, Ryan Chiang, Tzu-Hsiang Hung, Fei Fei Liu, Lachlan Su, Phillip Tran, Raymond Truong

Andrew J. Zele: The perception of brightness
Students: Joan Lee, Siti Nurhidayatul Nabilah Mohamad, Chia Lun Mandy Thai, Ying Tiong, Nguyen Thi Hanh Vo, Ya Weng Wong



Winners of the Master of Optometry Student Research Project Presentation Award (sponsored by Optometry Queensland and Northern Territory): 'The corneal response to scleral contact lens wear', by (left to right) Amy Johnson, Lynda Tran, Annabel Cristaldi, Assoc. Professor Stephen Vincent

(supervisor), Zoe Logan, Anthony Than and Samuel Cheung. Each student was presented with a copy of the book, Clinical Procedures in Primary Eye Care (signed by the author, Professor David B Elliott) from Optometry Queensland and Northern Territory.

Student Awards



- Optometry Queensland and Northern Territory Academic Highest Achievement in First Year BVisSci Award – Bianca Romeo
- Optometry Queensland and Northern Territory Highest Academic and Clinical Achievement in MOptom Award – Madeline Hutchinson
- School of Optometry and Vision Science Award (year three BVisSci student with highest GPA in the units 'Assessment of Vision 5' and 'Assessment of Vision 6') – Renata Gordon
- CooperVision Australia Contact Lens Prize (MOptom student with highest achievement in first year contact lens studies) – Jacqui Clow

*Pictured Top to bottom, L-R:
Bianca Romeo with OQNT President,
Melinda Toomey.
Madeline Hutchinson with OQNT
President, Melinda Toomey.
Renata Gordon with Head of School,
Professor Sharon Bentley.*



- Johnson & Johnson Vision Care Award (MOptom student with highest achievement in second year contact lens studies) – Katelyn Rose
- Australian College of Optometry Outstanding Graduate Award (highest GPA across both the BVisSci and MOptom) – Katelyn Rose
- Optometry Australia Student Leadership Program – James Lee and Amy Johnson



*Pictured Top to bottom, L-R:
Jacqui Clow with CooperVision
Professional Services Manager,
Joe Tanner.
Katelyn Rose with Head of School,
Professor Sharon Bentley.*



Student Clinic *Highlights*

In 2018 Tina Huynh was appointed to the position of Clinic Coordinator and we welcomed dispenser Pam Vorias to the team.

Our students and clinical supervisors provided 6,789 consultations at our QUT Optometry Clinic, an increase in 17% from 2017, with the service now operating throughout the year. In addition to providing services at the QUT Optometry Clinic, the School provides outreach services to communities experiencing disadvantage and with limited access to eye care. In 2018, students and supervisors participated in twelve regional clinics in Aboriginal and Torres Strait Islander communities, four refugee clinics, one aged care organisation and one homeless connect clinic.



Another highlight of our Clinic in 2018 was the 'Patients as Partners' program, where patients have the opportunity to give feedback about their consultation to the student via an online survey. In particular, patients are asked to provide feedback on the student's communication and interpersonal skills. This was beneficial not only for students, but for patients. More than 90% of patients agreed that they felt they were helping, that it was easy to give constructive comments, and that providing this feedback fostered patient participation in the clinic learning environment.





Tina Huynh (centre), QUT Optometry Clinic Coordinator, with Dispensers Harry Grzes (left) and Pam Vorias, (right).

The School's research was ranked 'above world standard' in 2018 according to the Australian Research Council Excellence in Research for Australia (ERA) evaluation.

Our research focus is on technological advances in the treatment and management of vision problems, the diagnosis and assessment of eye and vision disorders, and the functional impacts of vision impairment.

Our cutting-edge research is collaborative, globally recognised and far reaching. This year, more than fifty articles were published in scholarly journals, three Australian Research Council grants were awarded, substantial industry research support was secured, and six PhDs were completed.

Our Collaborations

The School of Optometry and Vision Science collaborates with many local and international researchers.

Metric		Publications	Citations
International collaboration	49.2%	183	1,640
Only national collaboration	12.4%	46	360
Only institutional collaboration	30.9%	115	825
Single authorship (no collaboration)	7.5%	28	99

Table: School affiliated publications, 2013-2018, by amount of collaboration, as calculated in SciVal, based on Scopus data 15 February 2019.

Our Reach: Number of Citing Countries

Using the 627 Scopus publications (2008-2018), the number of citing countries identified was 92.

Our research strengths include:

- Myopia and its prevention and control
- Optics of the eye and imaging
- Advanced methods for imaging the eye
- Anterior eye assessment and treatment
- Novel methods for the early detection and management of eye disease
- Melanopsin and visual science
- Ocular biomarkers of systemic disease
- Vision and everyday function
- Indigenous Eye Health
- Children's vision

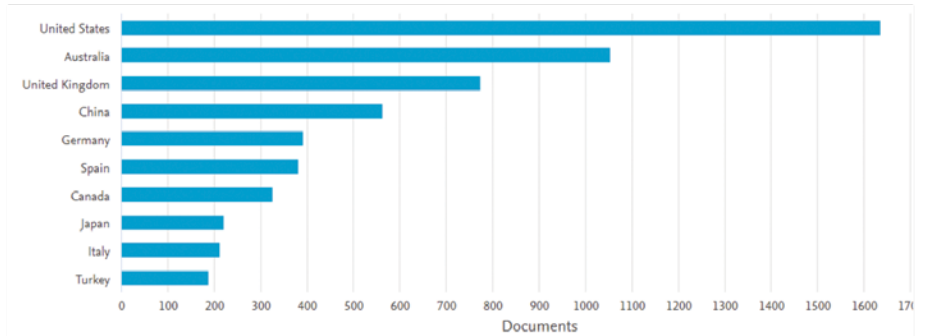


Figure: Top ten citing countries 2008-2018, calculated in Scopus up to 15 February 2019.



Figure: Map of citing countries, as calculated in SciVal. The map was produced in Excel, using Bing, based on Scopus data up to 15 February 2019.

Optics of the Eye and Imaging

The research team, led by Professor David Atchison, made progress with work on biometry changes in accommodation, peripheral aberrations and the development of their new technique of retinal holography. Collaborations with researchers from the QUT Robotics Centre, UNSW, China, India, Iran and the USA continued. The year ended well with a successful ARC Discovery grant to further investigate the Stiles-Crawford effect (retinal directionality).



Contact Lenses and Visual Optics

The Contact Lens and Visual Optics laboratory had a number of significant achievements during 2018. Three PhD students graduated during the year, Sekar Ulaganathan, Samaneh Delshad and Seyed Hosein Hoseini Yazdi and one of the current HDR students, Rohan Hughes, was named Queensland Young Optometrist of the Year. Members of the laboratory gave twenty conference presentations and had sixteen published



Professor Michael Collins speaking to science teachers during the National Science Teachers Summer School.

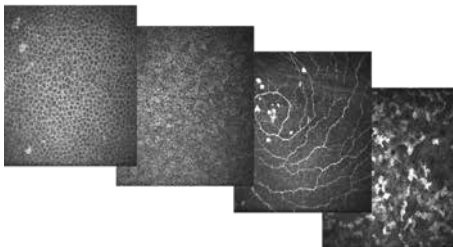
research papers. David Alonso-Caneiro was awarded a Rebecca Lillian Cooper Medical Research Foundation grant, Michael Collins, Scott Read and David Atchison were awarded an Innovation Connections Grant, with Cylite Pty Ltd and Michael Collins was awarded industry funding from Johnson and Johnson Vision Care (USA). This funding from Johnson and Johnson represented a 20-year milestone of continuous funding and partnership with the Contact Lens and Visual Optics laboratory.

Early in the year, the Contact Lens and Visual Optics Lab (CLVOL) hosted 36 secondary school teachers from the National Science Teachers Summer School (NSTSS) and 45 high school students from the National Youth Science Forum (NYSF). The School's CLVOL was delighted to be part of a program that encourages teachers and students to be excited about science, and especially health science disciplines such as optometry and vision science. They enthusiastically engaged the visiting teachers and visiting students at 11 different workstations, which

included learning activities on eye tracking, wavelength of light, thermal imaging of the eye, colour vision, binocular vision, contact lenses, tear film stability, visual acuity and blur, anatomy of the anterior eye (slit lamp), anatomy of the posterior eye (OCT), and also lenses and adaptive optics.

Vision and Everyday Function

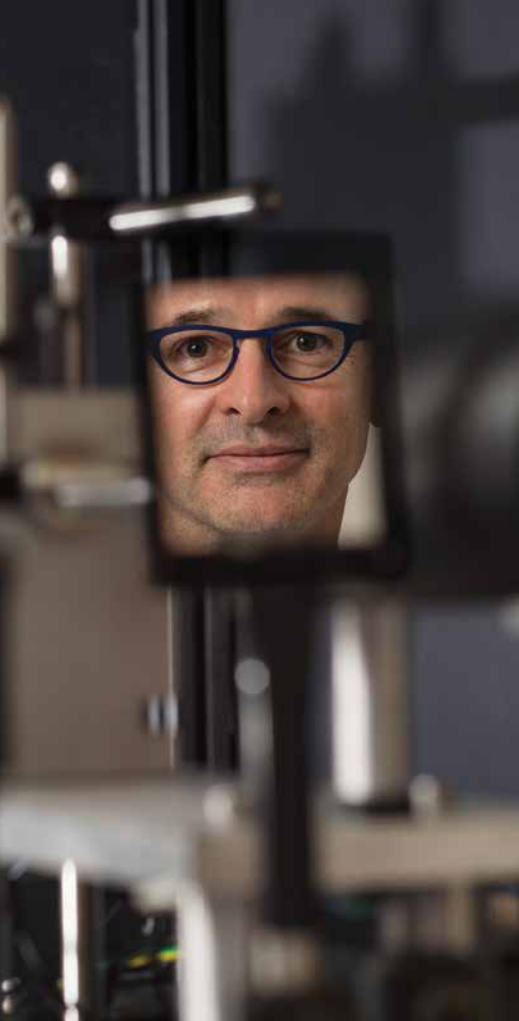
In 2018, the research team, led by Professor Joanne Wood and Dr Alex Black, completed data collection on a range of industry-funded projects on night-time visibility and road safety, delivered presentations at a range of national and international conferences and published papers on topics including visual impairment and driving, night-time driving and children's vision. The team also continued to develop their international profile in night driving and road lighting through CIE membership and presentation at the CIE Visibility workshop in Berlin. The research team was also successful in securing research support to lead an ARC-funded project on night-time driving, in partnerships



with national and internal collaborators. The ongoing research will focus on the specific visual challenges of night driving and develop solutions to improve the safety of night-time driving, walking and cycling.

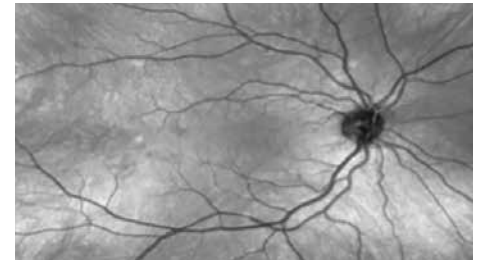
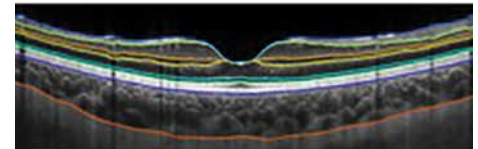
Anterior Eye

The Anterior Eye Laboratory, led by Katie Edwards has continued their research into cellular level changes at the ocular surface, in both ocular and systemic disease, using in-vivo confocal microscopy. Collaborations continued with researchers from UNSW, as well as a number of local collaborators. In the future, they will continue their work in assessment of the ocular surface, as well as their new area of research into the neurobiology of ocular surface symptoms.



Melanopsin and Visual Science

Together with his team, Associate Professor Andrew Zele provided initial evidence that melanopsin photoreception, independent of the rod and cone pathways, gives rise to conscious, image-forming visual perception (Zele, Feigl et al Scientific Reports 2018) and that its interactions with the cone pathways provide the neural code for a person to be able to ascertain the brightness of the ambient illumination (Zele, Adhikari et al J Opt Soc Am A 2018); this knowledge is redefining our textbook understanding of how the retinal output is used for visual perception. Of significance, Associate Professor Zele was awarded a prestigious Australian Research Council (ARC) Future Fellowship (2018-2022): 'Vision and lighting in the age of melanopsin'. A central challenge that will be addressed by this ARC Future Fellowship is to understand the retinal circuits giving rise to image and non-image forming melanopsin function.





Professor Fiona
Fylan, Leeds
Beckett
University, UK



Dr Alexander
Leube, Eberhard
Karls University,
Germany



Professor
Alex Wade,
University
of York, UK



Dr Yonji Liu,
Optics, Modern
Optics, China



Name: Adhikari P
Title: **A novel technology for understanding melanopsin contributions to human vision**
Funding Source: IHBI Early-Career Researcher Development Scheme
Duration of Funding: 2018
Total Funds: \$10,000

Names: Alonso-Caneiro D
Title: **Artificial intelligence for image processing in ocular imaging in health and disease**
Funding Source: Rebecca Lillian Cooper Medical Research Foundation
Duration of Funding: 2018-2019
Total Funds: \$100,000

Name: Atchison DA, Schmid KL, Suheimat M
Title: **Accommodation mechanisms in relation to the development of myopia**
Funding Source: Carl Zeiss Vision
Duration of funding: 2018-2020
Total Funds: \$113,955

Names: Atchison D, Lambert A, Suheimat M
Title: **Relationship of retinal directionality to human retinal anatomy variations**
Funding Source: Australian Research Council (ARC) Discovery
Duration of Funding: 2019-2021
Total Funds: \$425,000

Names: Chen F, De Roach J, Hunt D, Wilton S, Alonso-Caneiro D
Title: **Establishing a centre of research excellence in juvenile macular disease**
Funding Source: Telethon-Perth Children's Hospital Research Fund
Duration of Funding: 2018-2019
Total budget: \$249,880

Names: Collins MJ, Read SA, Atchison DA
Title: **Clinical validation trial: Cylite's hyperparallel optical coherence tomographer**
Funding Source: Innovation Connections Grant, Cylite Pty Ltd.
Duration of Funding: 2018
Total Funds: \$57,528

Name: Collins MJ
Title: **Industry**
Funding Source: Johnson & Johnson
Vision Care Inc.
Duration of Funding: 2017 - 2018
Total Funds: \$701,250 USD

Name: Collins MJ
Title: **Industry**
Funding Source: Johnson & Johnson
Vision Surgical
Duration of Funding: 2018
Total Funds: \$108,750 USD

Name: Edwards K, Kerr G, Finlayson K,
Lazzarini P
Title: **Equipment Grant**
Funding Source: QUT IHBI
Duration of Funding: 2019
Total Funds: \$50,000

Name: Edwards K, Pritchard N
Title: **Industry**
Duration of Funding: 2019
Total Funds: \$120,000

Name: Hopkins, S
Title: **How smart are the 'smart
vision charts' at detecting reduced
vision in children?**
Funding Source: QUT Women in
Research Grant Scheme
Duration of Funding: 2018-2019
Total Funds: \$9,757

Names: Read SA, Alonso-Caneiro D,
Collins MJ
Title: **The interaction between ON
and OFF retinal cell activation and
near focusing in myopia**
Funding Source: IHBI Innovation Ideas
Grant Scheme
Duration of Funding: 2018-2019
Total Funds: \$10,000

Names: Wood J, Black A, Atchison D,
Larue G
Title: **Mitigating signal colour-
misconceptions from prescription
lenses worn by train drivers**
Funding Source: Australasian Centre for
Rail Innovation
Duration of Funding: 2018-2019
Total Funds: \$108,079

Names: Wood J, Black A, Cupitt A
Title: **Assessment of blue light
hazards and colour temperature for
LED lighting**
Funding Source: Energex
Duration of Funding: 2018
Total Funds: \$30,000

Names: Wood J, Black A, Isoardi G
Title: **Dimming levels on driver
performance**
Funding Source: Department
of Environment and Energy,
Commonwealth of Australia
Duration of Funding: 2018
Total Funds: \$18,180

Names: Wood J, Black A, King N,
King M, Brough D, Fylan F
Title: **"WAKE up" - making
exercising in the dark safer and
more appealing through innovative
design of retroreflective apparel**
Funding Source: 2018 IHBI and HASS
Collaborative Incentive Scheme
Duration of Funding: 2018-2019
Total Funds: \$21,940

Names: Wood JM, Black A
Title: **Evaluation of optimum form of visibility via active lighting in various contexts**

Funding source: MAS Holdings – Research & Innovation (Private) Ltd
Duration of Funding: 2017-2018
Total Funds: \$31,241

Names: Meuleners L, Wood JM, Ng J, Morlet N, Brameld K
Title: **Visual impairment and injury: A population-based study**

Funding Source: Australian Research Council (ARC) Discovery Project
Duration of Funding: 2018-2020
Total Funds: \$228,000

Name: Wood J
Title: **Consulting Agreement**
Funding Source: Allergan
Duration of Funding: 2018
Total Funds: \$9,000

Name: Wood JM, McKendrick A, Black AA, Lacherez P, Isoardi G, Owsley CO
Title: **Using visual science to reduce the dangers of night driving**

Funding Source: Australian Research Council (ARC) Discovery Project
Duration of Funding: 2019-2021
Total Funds: \$399,458

Names: Zele AJ, Feigl B, Cao D, Kremers J
Title: **Melanopsin function in humans**

Funding Source: Australian Research Council (ARC) Discovery Project
Duration of Funding: 2017-2019
Total Funds: \$243,387

Name: Zele AJ
Title: **Vision and lighting in the age of melanopsin**
Funding Source: Australian Research Council (ARC) Future Fellowship
Duration of Funding: 2018-2021
Total Funds: \$988,451

1. Albietz J, Schmid KL. Intense pulsed light treatment and meibomian gland expression for moderate to advanced meibomian gland dysfunction. *Clinical and Experimental Optometry*. 2018; 101: 23-33.
2. Alonso-Caneiro D, Sampson DM, Chew AL, Collins MJ and Chen FK. Use of focus measure operators for characterization of flood illumination adaptive optics ophthalmoscopy image quality. *Biomedical Optics Express*. 2018; 9: 679-693.
3. Al Rashah K, Pritchard N, Dehghani C, Ruggeri A, Guimaraes P, Russell A, Malik RA, Efron N, Edwards K. Corneal nerve migration rate in a healthy control population. *Optometry and Vision Science*. 2018; 95: 672-677.
4. Atchison DA. Letter to the editor. Re: The mechanism of accommodation. *Clinical and Experimental Optometry*. 2018; 10: 424.
5. Barrionuevo PA, McAnany JJ, Zele AJ, Cao D. Nonlinearities in the rod and cone photoreceptor inputs to the afferent pupil light response. *Frontiers in Neurology*. 2018; 9: 1140. doi:10.3389/fneur.2018.011840.
6. Bentley SA, Trevaskis JE, Woods CA, Guest DJ, Watt KG. Impact of supervised student optometry consultations on the patient experience. *Clinical and Experimental Optometry* 2018; 101: 288-296.
7. Birch EE, Castañeda YS, Cheng-Patel CS, Morale SE, Kelly KR, Beauchamp CL, Webber A. Self-perception of school-aged children with amblyopia and its association with reading speed and motor skills. *JAMA Ophthalmology* 2018 Nov 15. doi: 10.1001/jamaophthalmol.2018.5527. [Epub ahead of publication]
8. Carkeet A, Lister LJ. Computer monitor pixellation and Sloan letter visual acuity measurement. *Ophthalmic and Physiological Optics*. 2018; 38: 144-151.
9. Carkeet A, Goh YT. Confidence and coverage for Bland-Altman limits of agreement and their approximate confidence intervals. *Statistical Methods in Medical Research*. 2018; 27: 1559-1574.
10. Chandrasekera E, Wong EN, Sampson DM, Alonso-Caneiro D and Chen FK. Posterior choroidal stroma reduces accuracy of automated segmentation of outer choroidal boundary in swept source optical coherence tomography. *Investigative Ophthalmology and Visual Science*. 2018; 59: 4404-4412.
11. Chen X, Graham J, Petropoulos IN, Ponirakis G, Asghar O, Alam U, Marshall A, Ferdousi M, Azmi S, Efron N, Malik RA. Corneal Nerve Fractal Dimension: A Novel

- Corneal Nerve Metric for the Diagnosis of Diabetic Sensorimotor Polyneuropathy. *Investigative Ophthalmology and Visual Science*. 2018; 59: 1113-1118.
12. Chong MFA, Jackson AJ, Cho H, Bentley SA. Profile of the Australian College of Optometry Low Vision Clinic. *Clinical and Experimental Optometry*. 2018; 101: 793-798.
13. Ferdousi M, Petropoulos IN, Kalteniece A, Azmi S, Ponirakis G, Efron N, Soran H, Malik RA. No relation between the severity of corneal nerve, epithelial, and keratocyte cell morphology with measures of dry eye disease in type 1 diabetes. *Investigative Ophthalmology and Visual Science*. 2018; 59: 5525-5530.
14. Feigl G, Ojha G, Hides L, Zele AJ. Melanopsin-driven pupil response and light exposure in non-seasonal, major depressive disorder. *Frontiers in Neurology*. 2018; 9: 764. doi:10.3389/fneur.2018.00764.
15. Fylan F, Hughes A, Wood JM, Elliott DB. Why do people drive when they can't see clearly? *Transportation Research Part F: Traffic Psychology and Behaviour*. 2018; 56: 123-133.
16. Hamwood J, Alonso-Caneiro D, Read SA, Vincent SJ and Collins MJ. Effect of patch size on a convolutional neural network approach for automatic segmentation of OCT retinal layers. *Biomedical Optics Express*. 2018; 9: 3049-3066.
17. Hathibelagal AR, Feigl B, Cao D, Zele AJ. Correlated cone noise decreases rod signal contributions to the post-receptoral pathways. *Journal of the Optical Society of America A*. 2018; 35: B78-B84.
18. Hathibelagal AR, Feigl B, Cao D, Zele AJ. Extrinsic cone-mediated post-receptoral noise inhibits the rod temporal impulse response function. *Journal of the Optical Society of America A*. 2018; 35: B72-B77.
19. Itoi M, Itoi M, Efron N, Morgan P and Woods C. Trends in contact lens prescribing in Japan (2003-2016). *Contact Lens and Anterior Eye*. 2018; 41: 369-376.
20. Joyce DS, Feigl B, Kerr G, Roeder L, Zele AJ. Melanopsin-mediated pupil function is impaired in Parkinson's disease. *Scientific Reports*. 2018; 8: 7796.
21. Kalteniece A, Ferdousi M, Petropoulos I, Azmi S, Adam S, Fadavi H, Marshall A, Boulton AJM, Efron N, Faber CG, Lauria G, Soran H, Malik RA. Greater corneal nerve loss at the inferior whorl is related to the presence of diabetic neuropathy and painful diabetic neuropathy. *Scientific Reports*. 2018; 8: 3283.
22. Khan A, Pope JM, Verkicharla PK, Suheimat M, Atchison DA. Change in human lens dimensions,

- lens refractive index distribution and ciliary body ring diameter with accommodation. *Biomedical Optics Express*. 2018; 9: 1272-1282.
23. Kugelman J, Alonso-Caneiro D, Read SA, Vincent SJ, Collins MJ. Automatic segmentation of OCT retinal boundaries using recurrent neural networks and graph search. *Biomedical Optics Express*. 2018; 9: 5759–5777
 24. Kuo E, Atchison DA, Schmid KL. Dot motion perception in young adult emmetropes and myopes. *Optometry and Vision Science* 2018; 95: 498-504.
 25. Landis EG, Yang V, Brown DM, Pardue MT, Read SA. Dim light exposure and myopia in children. *Investigative Ophthalmology and Visual Science*. 2018; 59:4804–4811.
 26. Lau JK, Vincent SJ, Collins MJ, Cheung SW, Cho P. Ocular higher-order aberrations and axial eye growth in young Hong Kong children. *Scientific Reports*. 2018; 8: 6726.
 27. Larue G S, Filtress AJ, Wood JM, Demmel S, Watling CN, Naweed A et al. Is it safe to cross? Identification of trains and their approach speed at level crossings. *Safety Science*. 2018; 103: 33-42.
 28. Lee SS, Black AA, Wood JM. Scanning behavior and daytime driving performance of older adults with glaucoma. *Journal of Glaucoma*. 2018; 27: 558-565.
 29. Moreno-Esteva EG, White SL, Wood JM, Black AA. Application of mathematical and machine learning techniques to analyse eye tracking data enabling better understanding of children’s visual cognitive behaviours. *Frontline Learning Research*. 2018; 6(3):72-84.
 30. Palmer D, Coppin T, Rana K, Dansereau D, Suheimat M, Maynard M, Atchison DA, Roberts J, Crawford R, Jaiprakash A. Glare-free retinal imaging using a portable light field fundus camera. *Biomedical Optics Express*. 2018; 9: 3178-3192.
 31. Osuagwu UL, Verkicharla P, Suheimat M, Atchison DA. Peripheral monochromatic aberrations in young adult Caucasian and East Asians. *Optometry and Vision Science* 2018; 95: 234-238.
 32. Owsley C, McGwin G Jr, Antin JF, Wood JM, Elgin J. The Alabama VIP older driver study rationale and design: examining the relationship between vision impairment and driving using naturalistic driving techniques. *BMC Ophthalmology*. 2018; 18: 32.
 33. Perkins BA, Lovblom LE, Bril V, Scarr D, Ostrovski I, Orszag A,

- Edwards K, Pritchard N, Russell A, Dehghani C, Pacaud D, Romanchuk K, Mah JK, Jeziorska M, Marshall A, Shtein RM, Pop-Busui R, Lentz SI, Boulton AJM, Tavakoli M, Efron N, Malik RA. Corneal confocal microscopy for identification of diabetic sensorimotor polyneuropathy: a pooled multinational consortium study. *Diabetologia*. 2018; 61: 1856-1861.
34. Pieterse EC, Read SA, Collins MJ, Alonso-Caneiro D. Anterior scleral thickness changes with accommodation in myopes and emmetropes. *Experimental Eye Research*. 2018; 177:96-103.
 35. Read SA, Pieterse EC, Alonso-Caneiro D, Bormann R, Hong S, Lo C-H, Richer R, Syed A, Tran L. Daily morning light therapy is associated with an increase in choroidal thickness in healthy young adults. *Scientific Reports*. 2018; 8: 8200.
 36. Read SA, Vincent SJ, Tan C-S, Ngo C, Collins MJ, Saw S-M. Patterns of daily outdoor light exposure in Australian and Singaporean children. *Translational Vision Science and Technology*. 2018; 7: 8.
 37. Sander BP, Collins MJ and Read SA. The interaction between homatropine and optical blur on choroidal thickness. *Ophthalmic and Physiological Optics*. 2018; 38: 257-265.
 38. Simpson J, Vincent SJ. Intraepithelial corneal haemorrhage in a rigid contact lens wearer. *Contact Lens and Anterior Eye*. 2018; 41: 455-457.
 39. Srinivasan S, Dehghani C, Pritchard N, Edwards K, Russell AW, Malik RA, Efron N. Ophthalmic and clinical factors that predict four-year development and worsening of diabetic retinopathy in type 1 diabetes. *Journal of Diabetes and its Complications*. 2018; 32: 67-74.
 40. Vincent SJ. The rigid lens renaissance: A surge in sclerals. *Contact Lens and Anterior Eye*. 2018; 41: 139-143.
 41. Vincent SJ. Painless bilateral bullous keratopathy. *Contact Lens and Anterior Eye*. 2018; 41: 452-454.
 42. Vincent SJ, Alonso-Caneiro D and Collins MJ. The temporal dynamics of miniscleral contact lenses: Central corneal clearance and centration. *Contact Lens and Anterior Eye*. 2018; 41: 162-168.
 43. Vincent SJ and Fisher D. Homonymous hemi retinal macular ganglion cell complex thinning following occipital lobe trauma. *Clinical and Experimental Optometry*. 2018; 101: 802-804.
 44. Vincent SJ, Lowe KA and Monsour CS. Never too old: late-onset Leber hereditary optic neuropathy. *Clinical and Experimental Optometry*. 2018; 10: 137-139.

45. Virgili G, Acosta R, Bentley SA, Giacomelli G, Allcock C, Evans JR. Reading aids for adults with low vision. Cochrane Database Systematic Reviews. 2018; 4: CD003303.
46. Webber AL. The functional impact of amblyopia. Clinical and Experimental Optometry. 2018; 101: 443-450.
47. Webber AL, McKinlay L, Gole GA, Sleep M, Johnson H. The Paediatric Optometry Alignment Program integrated care between hospital based paediatric ophthalmology and community-based optometry. International Journal of Integrated Care. 2018; 18: 46. DOI10.5334/ijic.s1046.
48. Webber AL and Camugilia J. A pragmatic approach to diagnosis of amblyopia. Clinical and Experimental Optometry. 2018; 101: 451-459.
49. Webster AB, Lyon GM, Blowers KA, Roth GN, Deacon JA, Baan CL, Carkeet A. Monocular ghost image offset thresholds: Dependent on target size and ghost image relative brightness. Optometry and Vision Science. 2018; 95: 568-574.
50. Wood JM, Black AA, Mallon K, Kwan AS, Owsley C. Effects of age-related macular degeneration on driving performance. Investigative Ophthalmology and Visual Science. 2018; 59: 273-279.
51. Wood JM, Black AA, Hopkins S, White SLJ. Vision and academic performance in primary school children. Ophthalmic & Physiological Optics. 2018; 38: 516-524.
52. Wood JM, Isoardi G, Black A, Cowling I. Night-time driving visibility associated with LED streetlight dimming. Accident Analysis & Prevention. 2018; 121:295-300.
53. Yang C-H, Albietz J, Harkin DG, Kimlin MG, Schmid KL. Impact of oral vitamin D supplementation on the ocular surface in people with dry eye and/or low serum vitamin D. Contact Lens and Anterior Eye. 2018; 41: 69-76.
54. Zele AJ, Adhikari P, Feigl B, Cao D. Cone and melanopsin contributions to human brightness estimation: Reply. Journal of the Optical Society of America A. 2018; 35: 1783.
55. Zele AJ, Feigl B, Adhikari P, Maynard ML, Cao D. Melanopsin photoreception contributes to human visual detection, temporal and colour processing. Scientific Reports. 2018; 8: 3842. doi: 10.1038/s41598-018-22197-w.

Atchison DA. Optics of the human eye. In: Guenther R, Steel D, eds. **Encyclopedia of Modern Optics**, 2nd ed., vol 5. Oxford, UK: Elsevier, 2018.

DeCarlo DK, Elgin J, Wood JM. Use of a bioptic telescopes for driving. In: Rosenfield M. **Clinical Cases in Eye Care**, 2nd ed. Philadelphia, PA, USA: Lippincott Williams & Wilkins, 2018.

Books and Book Chapters

Presentations at Conferences

Adhikari P. Novel biomarkers of melanopsin function in humans. (Keynote Address) All Nepal Optometry Conference; 2018, 5-6 Oct: Kathmandu, Nepal.



Dr Prakash Adhikari. All Nepal Optometry Conference 2018.

Adhikari P, Zele AJ, Cao D, Kremers J, Feigl B. The influence of melanopsin activation on the cone-mediated photopic white noise electroretinogram (wnERG) in humans. (Poster) Optical Society of America Frontiers in Optics/Laser Science Conference; 2018, 16-20 Sept: Washington DC, USA.

Adhikari P, Zele AJ, Cao D, Kremers J, Feigl B. Melanopsin interacting with the cone-mediated white noise electroretinogram. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Alonso-Caneiro D, Read SA, Hamwood J, Vincent SJ, Collins MJ. Automatic segmentation of retinal and choroidal thickness in OCT images using convolutional neural networks. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Alonso-Caneiro, D. Use of deep learning for automatic detection of cone photoreceptors. 15th Conference on Optics within Life Sciences 2018; 25-28 Nov: Perth, WA, Australia.

Alonso-Caneiro, D. Use of deep learning for automatic detection of cone photoreceptors in flood illumination adaptive optics ophthalmoscopy. AI for Retinal Image Analysis (AIRIA) 2018; 2 Dec: Perth, WA, Australia.



Professor David Atchison (right) at ARVO Annual Meeting with Professor Larry Thibos and Professor Ray Applegate (middle).

Atchison DA, Khan A, Pope JM, Verkicharla PK, Suheimat M. Change in human lens dimensions, lens refractive index distribution and ciliary ring diameter with accommodation. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Atchison DA, Lu J, Yip C, Suheimat M, Schmid K. Refraction effects of plano-ophthalmic prisms and magnifying lenses. Scientific and Educators' Meeting in Optometry; 2018, 5-6 Apr: Melbourne, VIC, Australia.

Atchison DA, Suheimat M, Schmid KL. Refraction effects of plano-ophthalmic prisms and magnifying lenses. Visual and Physiological Optics Conference; 2018, 29-31 Aug: Athens, Greece.

Atchison DA. Eye shapes in emmetropes and myopes. Congress of the Orthokeratology Society of Oceania; 2018, 6 Oct: Gold Coast, QLD, Australia.

Bentley SA, Green C, Malesic L, Siggins T, Escott C, O'Keefe M, Clarke C, Vocale J. An Australian collaborative model

of care for low risk glaucoma patients. American Academy of Optometry Meeting; 2018, 7-10 Nov: San Antonio, TX, USA.

Bhattarai D, Suheimat M, Lambert AJ, Atchison DA. Fixation stability with Bessel beams. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.



Pictured: Professor Joanne Wood and Dr Alex Black. ARVO 2018.

Black AA. Teaching clinical reasoning in the optometry consulting room: Perspectives from clinical educators. Scientific and Educators' Meeting in Optometry; 2018, 5-6 Apr: Melbourne, VIC, Australia.

Black AA, Chiu C, Kim G, Le J, Lee H, Nguyen T, Wood J. Effect of refractive blur on judgment of pedestrian walking

direction at night-time. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Carkeet A. Diplopia and visual acuity, magnitude, orientation and contrast. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Carkeet A. Different termination rules give different acuity results for Sloan and C optotypes and different levels of crowding. Scientific and Educators' Meeting in Optometry; 2018, 5-6 Apr: Melbourne, VIC, Australia.

Carkeet A. Acuity rules. (Keynote Address) University of Houston College of Optometry USAustralia Vision Summit; 2018, 12 Nov: Houston, TX USA.

Carkeet A, Ng JH, Choo J.S. Bearing fixing. A new subjective method for determination of astigmatic cylinder and power. (Poster) American Academy of Optometry Annual Meeting; 2018, 9 Nov: San Antonio, TX, USA.

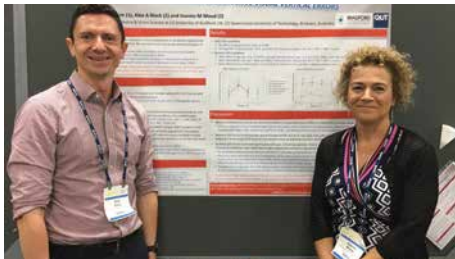
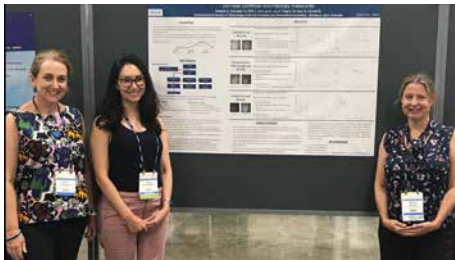
Collins MJ. Myopia control: The evidence base behind the options. (Invited) Royal Australian and New Zealand College of Ophthalmologists, Queensland Branch, Annual Scientific Meeting; 2018, 4 Aug: QLD, Australia.

Davis BA, Rajasingam PV and Collins MJ. Measuring ultraviolet autofluorescence (UVA-F) and sodium fluorescein (NaFl) emission spectra. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Delshad S, Collins MJ, Read SA, Vincent SJ. Time course of the axial length and blur adaptation responses of the human eye to imposed myopic blur. Scientific and Educators' Meeting in Optometry; 2018, 5-6 Apr: Melbourne, VIC, Australia.

Edwards K, Colorado LH, Dinh L, Ha S, Liu D, Luu A, Trang S, Yu-Ting T, Schmid KL. The effect of menstrual cycle, lifestyle factors and dry eye signs and symptoms on in vivo corneal confocal microscopy measures. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

L-R: Dr Katie Edwards, Dr Luisa Holguin Colorado and Associate Professor Katrina Schmid. ARVO 2018.



Dr Alex Black and Professor Joanne Wood. ARVO 2018.

Edwards K, Colorado LH, Dinh L, Ha S, Liu D, Luu A, Trang S, Yu-Ting T, Schmid KL. Lifestyle factors and menstrual cycle phases: impact on dry eye signs and symptoms. (Poster) 2018 ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Elliott D, Black AA, Wood JM. Oblique astigmatism distorts subjective visual vertical. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Friskén S, Friskén G, Anderson T, Segre A, Ferra H, Rajasingam P, Collins MJ. Novel highly-parallelized OCT providing motion-tolerant in-vivo topographic metrology of ocular surfaces biometry and volume anterior segment imaging. ARVO Imaging in the Eye Conference; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Fylan F, Hughes A, Wood JM, Elliott DB. Why do people drive when they can't see clearly? ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Gifford KL, Gifford P, Hendicott PL, Schmid KL. The interaction of vergence

and tonic accommodation in pediatric myopic contact lens wear. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Holguin Colorado L. Corneal dendritic cell density and its association with corneal nerve morphology and inflammatory mediators and neuropeptides in the healthy tear film. University of Houston College of Optometry USAustralia Vision Summit; 2018, 12 Nov: Houston, TX USA.

Hopkins S, White SL, Black AA, Wood JM. Plus lens screening test as a predictor of hyperopia. American Academy of Optometry Annual Meeting; 2018, 7-10 Nov: San Antonio, TX, USA.

Hopkins, S., Schmid, K., Huynh, T. Incorporating a patient feedback instrument into a student optometry clinic: student and patient perspectives. Co-Constructing Excellence Conference: recognising, scaffolding and building excellence in university learning and teaching; 2018, 18-19 Dec: Hong Kong.

Kimlin J, Black AA, Wood JM. Investigation of visual function tests for night driving difficulties. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Kirkman JM, Bentley SA, Armitage JA, Woods CA. Attitude of optometry students towards rural clinical placements and practice. Scientific and Educators' Meeting in Optometry; 2018, 5-6 Apr: Melbourne, VIC, Australia.

Lau JKK, Cheung SW, Collins MJ and Cho, P. Short-term changes in choroidal thickness and axial length in children fitted with orthokeratology lenses of different compression factors. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Lee SS, Black AA, Wood JM. Larger saccades improve daytime closed-road driving performance of older adults with glaucomatous visual impairment. World Ophthalmology Conference; 2018, 16-19 Jun: Barcelona, Spain.

Markoulli M, Colorado LH, Edwards K. Corneal nerve morphology and its association with inflammatory mediators and neuropeptides in the healthy tear film. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Read SA. High resolution eye imaging, now and into the future: Prospects for new research discoveries. (Invited) Australian Academy of Health and Medical Sciences, Queensland Clinical Science Symposium; 2018 10 Mar: Brisbane, QLD, Australia.

Read SA. Mapping peripheral retinal and choroidal thickness in myopia. (Paper) American Academy of Optometry Annual Meeting 2018, 7-10 November: San Antonio Texas, USA.

Read SA. Light therapy and the choroid. US Australia Vision Summit 2018, 12 Nov: Houston Texas, USA.

Read SA. The role of the choroid in myopia; Retinal changes associated with myopia; Near work in myopia. (Invited) Singapore Primary Eye care Symposium 2018, 18-19 Jul: Singapore.

Read SA. The great outdoors and myopia. (Invited) 13th Congress of the Orthokeratology Society of Oceania; 2018, 6 Oct: Gold Coast QLD, Australia.

Schmid KL, Beavis SD, Chen J, Chien Y-T, Nguyen T, Tran AN, Wallace SI, Varnas SR, Atchison DA. The effect of base-up and base-down vertically yoked prisms on binocular vision and accommodation. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Schmid KL. Mastery motivation in optometry students at commencement and end of the first year of study. Scientific and Educators' Meeting in Optometry; 2018, 5-6 Apr: Melbourne, VIC, Australia.

Schmid KL. Breakfast with an Expert. Developing Your Teaching Portfolio. ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Schmid KL. Mastery motivation in first year optometry students. Queensland University Educators' Showcase; 2018, 28 Sept: Sunshine Coast, QLD, Australia.



Above: Professor Joanne Wood and Dr Janessa Kimlin. ARVO 2018.

Below L-R: Dr Maria Markouli, Dr Luisa Holguin Colorado and Dr Katie Edwards. ARVO 2018.



Suheimat M, Bhattarai D, Lambert AJ, Atchison DA. Improving ophthalmic devices using Bessel beams. Scientific and Educators' Meeting in Optometry; 2018, 5-6 Apr: Melbourne, VIC, Australia.

Suheimat M, Lambert AJ, Atchison DA. In-vivo holographic imaging and reconstruction of the human eye. ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Suheimat M, Lambert AJ, Atchison DA. Objective measurement of the Stiles-Crawford Effect using retinal holography. IHBI Inspires Meeting; 2018, 17 Aug: Brisbane, Australia.

Vincent, SJ. Visual optics and eye growth. (Invited) West China International Myopia Control and Eye Care Symposium; 2018, 9-11 Mar: Chengdu, Sichuan, China.

Left: Associate Professor Scott Read. Singapore Primary Eyecare Symposium 2018.

Vincent SJ. Scleral lens technology. (Invited) International Congress of Scleral Contacts; 2018: 27 Jul: Fort Lauderdale, Florida, USA.

Vincent SJ. MD/OD collaboration on sclerals for corneal irregularity and PKP. (Invited) International Congress of Scleral Contacts; 2018: 27 Jul: Fort Lauderdale, Florida, USA.

Vincent SJ, Pieterse EC, De Souza NJ, Morton MJ. Second year optometry student interaction and performance within a simulated learning environment (Brien Holden Vision Institute Virtual Refractor). Scientific and Educators' Meeting in Optometry; 2018, 5-6 Apr: Melbourne, VIC, Australia.

Vincent SJ, Alonso-Caneiro D, Kricancic H, Collins MJ. Scleral contact lens thickness profiles: the relationship between average and centre lens thickness. Scientific and Educators' Meeting in Optometry; 2018, 5-6 Apr: Melbourne, VIC, Australia.



Top: Associate Professor Stephen Vincent. International Congress of Scleral Contacts 2018.

Middle: Professor Joanne Wood. CIE Visibility Workshop, Berlin, 2018.

Webber AL, Schmid KL, Hess R, Reynaud A, Baldwin A. Suppression rather than visual acuity loss limits threshold stereoacuity. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Webber AL, Wood JM, Thompson B, Birch EE. From suppression to stereoacuity – A composite binocular function score for clinical research. American Academy of Optometry Annual Meeting; 2018, 7-10 Nov: San Antonio, TX, USA.

Webber AL, McKinlay L, Gole GA. Boots on the ground for paediatric eye care - An evaluation of the Paediatric Optometry Alignment Program. (Poster) American Academy of Optometry Annual Meeting; 2018, 7-10 Nov: San Antonio, TX, USA.

Webber AL. Paediatric eyecare into the future. (Invited) Australian College of Optometry Annual Meeting; 2018, 19 Oct: Melbourne, VIC, Australia.

Webber AL. Scary kids that keep me awake at night. (Invited) North Queensland Vision, Optometry Queensland and Northern Territory; 2018, 7-8 Jul: Cairns, QLD, Australia.

Webber AL. What do you prescribe for kids with strabismus? (Invited) North Queensland Vision, Optometry Queensland and Northern Territory; 2018, 7-8 Jul: Cairns, QLD, Australia.

Wood JM, Black AA, Anstey K, Horswill M. Hazard perception in older adults with visual impairment. ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Wood JM. Road safety at night: The visual challenges, lighting issues and improving visibility. CIE Visibility Workshop; 2018, 24-25 May: Berlin, Germany.

Wood JM. Vision and driving. (Zeiss-sponsored) Specsavers Dispensing Conference; 2018, 12 Aug: Brisbane, QLD, Australia.

Wood JM. Vision and driving. (Zeiss-sponsored) Specsavers Dispensing Conference; 2018, 13 Aug: Sydney, NSW, Australia.

Wood JM. Vision and driving. (Zeiss-sponsored) Specsavers Dispensing Conference; 2018, 15 Aug: Melbourne, VIC, Australia.

Wood JM. Vision and driving. (Zeiss-sponsored) Specsavers Dispensing Conference; 2018, 17 Aug: Perth, WA, Australia.

Wood JM. Role of vision in driving. (Invited) Eye Institute Annual Conference; 2018, 4 Nov: Auckland, NZ.

Wood JM. Vision and academic performance in children". (Invited) Eye Institute Annual Conference; 2018, 4 Nov: Auckland, NZ.

Yi F, Davis BA, McNeill HJ, Collins MJ. Dynamic pupil tracking for adaptive optics visual simulator with liquid crystal spatial light modulator. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Zelev AJ, Feigl B, Adhikari P, Cao D. Melanopsin contributions to image forming vision. (Poster) ARVO Annual Meeting; 2018, 29 Apr-3 May: Honolulu, HI, USA.

Zelev AJ. Melanopsin mediated photoreception in humans. (Invited) European Conference on Visual Perception; 2018, 26-30 Aug: Trieste, Italy.

Zelev AJ. Melanopsin function in humans. (Invited) Australian Chronobiology Society; 2018, 16 Oct: Brisbane, QLD, Australia.



Alonso-Caneiro D. Image processing methods in optical coherence tomography of the eye. School of Optometry and Vision Science, UNSW; 2018, Mar: Sydney, NSW, Australia.

Alonso-Caneiro D. Machine learning methods in optical coherence tomography of the eye. Optical Society of America (OSA) Lecture Series; 2018, 31 Oct: Kelvin Grove, QLD, Australia.

Alonso-Caneiro D. Use of deep-learning methods for automatic segmentation of choroidal thickness in optical coherence tomography. Lions Eye Institute Seminar Series; 2018, 29 Nov: Perth, WA, Australia.

Bhattarai D, Suheimat M, Lambert AJ, Atchison DA. Application of Bessel beams in the human eye. School of Optometry and Vision Science, The University of Auckland; 2018, 25 Apr: Auckland, New Zealand.

Edwards K. Are the eyes a window to the soul? School of Optometry and

Vision Science, UNSW; 2018, May: Sydney, NSW, Australia.

Edwards K. Corneal nerve markers of peripheral neuropathy. Royal Brisbane Hospital, Neurology Department; 2018, Aug: Brisbane, QLD, Australia.

Holguin Colorado L. Corneal dendritic cell density and its association with corneal nerve morphology and inflammatory mediators and neuropeptides in the healthy tear film. Seminar in Neuroscience, Louisiana State University, School of Medicine; 2018, Nov: New Orleans, USA.

Read SA. Light exposure and myopia. Singapore Eye Research Institute; 2018, 17 Jul: Singapore.

Vincent SJ. Visual optics, eye growth, and myopia control. Hong Kong Academy of Orthokeratology, Hong Kong Polytechnic University; 2018, 4 Dec: Hong Kong.



Sekar Ulaganathan.

Sekar Ulaganathan

Title: The influence of light exposure and seasonal changes on short-term and longer - term changes in axial length of the human eye / Supervisors: Scott Read, Michael Collins, Stephen Vincent



Kate Gifford (right).

Kate Gifford

Title: Binocular visual function in orthokeratology contact lens wear for myopia / Supervisors: Katrina Schmid, Peter Hendicott



Samaneh Delshad.

Samaneh Delshad

Title: Temporal dynamics of the eye's response to blur / Supervisors: Michael Collins, Scott Read, Stephen Vincent



Seyed Hosein Hoseini Yazdi.

Khaled Al Rashah

Title: Characterising corneal nerve migration rates in healthy and diabetic individuals with and without neuropathy / Supervisors: Katie Edwards, Nathan Efron, Nicola Pritchard

Seyed Hosein Hoseini Yazdi

Title: Spatial characteristics of the response of the human choroid to imposed defocus / Supervisors: Stephen Vincent, Scott Read, Michael Collins

Amithavikram Rugvedi Hathibelagal

Title: The role of noise on rod signaling in the visual pathways / Supervisors: Andrew J. Zele, Beatrix Feigl

Staff Promotions

- Associate Professor Stephen Vincent
- Associate Professor Ann Webber

Research Awards

- Professor Joanne Wood: Distinguished Lecturer, Schepens Eye Research Institute, Massachusetts Eye and Ear, Boston in recognition of “unique expertise and outstanding accomplishments in the field of driving research.”
- Dr David Alonso-Caneiro: Kevin Cahill Award as part of the 2018 Project Grant from the Rebecca L Cooper Medical Research Foundation for the most interesting or innovative project grant in the field of Vision Sciences, “Artificial intelligence for image processing in ocular imaging in health and disease.”

- Dr Yahya Alzahrani, Dr Luisa Holguin Colorado, Dr Nicola Pritchard and Professor Nathan Efron for their article, ‘Longitudinal changes in Langerhans cell density of the cornea and conjunctiva in contact lens-induced dry eye’: 2018 J Lloyd Hewitt Award for the most meritorious article published in Clinical and Experimental Optometry in the previous three years.

Teaching and Learning Awards

- Dr David Alonso-Caneiro: Graduate Certificate in Academic Practice and Fellowship of the Higher Education Academy
- Dr Emily Pieterse: Sessional Teaching and Reflection Showcase Finalist (highly commended)

Professional Awards

- Professor David Atchison: Outstanding Committee Award (MS-024 – Spectacles. Standards Australia, 2018)

Dr David Alonso-Caneiro (L) receiving the Kevin Cahill Award.



Professor David Atchison (fifth from left), member and past Chair (2005-2017) of the Standards Australia Spectacles Committee, winners of the 'Outstanding Committee Award'.



- Dr Luisa Holguin Colorado: Fellowship of the American Academy of Optometry
- Rohan Hughes: Optometry Queensland Northern Territory Young Optometrist of the Year



Rohan Hughes receiving his Young Optometrist of the Year Award from Optometry Queensland and Northern Territory President Melinda Toomey.

Vale Brian *Brown*

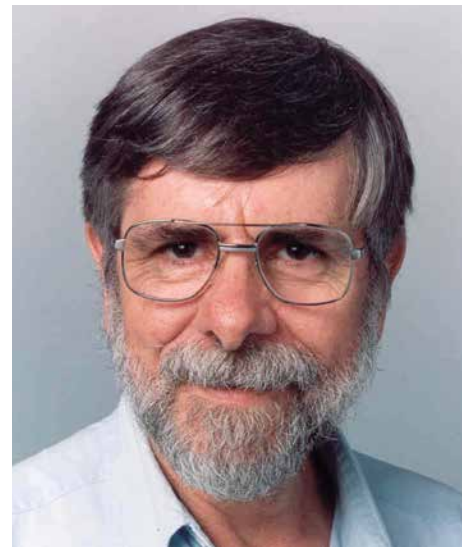
We would like to pay tribute to Professor Brian Brown, recognised as the founder of optometry research at QUT, who sadly passed away in August 2018.

Professor Brian Brown joined Queensland Institute of Technology (QIT), as it was known in 1983, under Emeritus Professor Ken Bowman (AM), charged with creating research capability and culture in the Department of Optometry. Indeed, he was extremely successful. Today, thanks to his excellent leadership and mentoring, the School has a vibrant research culture and produces high quality scientific research that is internationally recognised.

Emeritus Professor Ken Bowman AM recalls, "I recruited Brian to QIT in the early 1980s, giving him a remit to support the development of the research performance and research culture of the (then) Department of Optometry. His enthusiasm for instilling a questioning and research-oriented perspective in students was infectious and was supported by his own very strong research activities. He also played the

Professor Brian Brown

Professor Brian Brown conducting research with Professor Ken Bowman in the late 1980s.

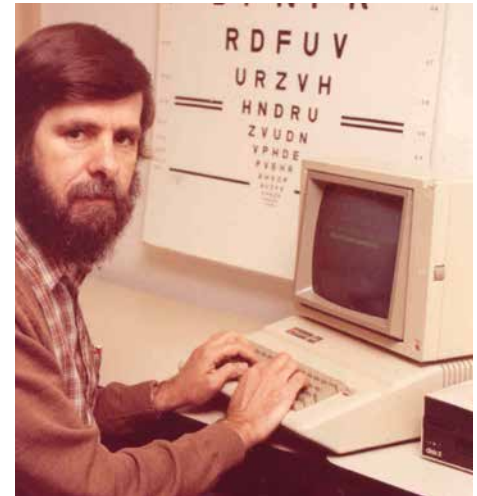


lead role in final year research projects, the high standard of which meant that many resulted in journal publications. Brian also led and collaborated with his academic staff colleagues on many grant-funded as well as industry-funded research projects. In this capacity, he played a strong mentoring role within the Department. He also organised the 'Practitioner Forum' series of monthly presentations for optometrists that were conducted during the 1980s. Brian's contribution to the early development of the strong research base for the School of Optometry and Vision Science is his lasting legacy at QUT."

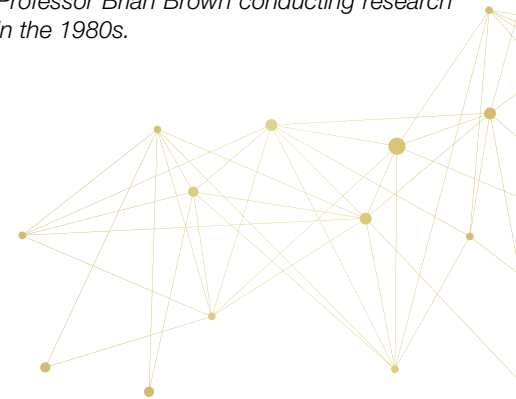
Professor Brown studied optometry at The University of Melbourne, completing his Bachelor of Applied Science (Optometry) in 1964 and his PhD in 1970 on dynamic visual acuity and driving. He was in good company, with classmates including QUT Emeritus Professor Leo Carney (former Head of our School), and the late Professor Brien Holden (founder of the Brien Holden Vision Institute) and several others who made significant contributions to optometry

and academia. Professor Brown's contributions to optometry and vision science extended far beyond Australia to the UK, USA and Hong Kong. He published more than 170 scientific articles across a diverse range of topics; in particular, AMD and mfERG. Perhaps most importantly, Professor Brown supervised and mentored hundreds of students and colleagues, generating a long lasting legacy far and wide, and well into the future. He was Clinical and *Experimental Optometry's* Editor-in-Chief from 1986-1990.

A legend in vision research, Professor Brian Brown will always be fondly remembered and very much missed by the School. In his memory we have established the Brian Brown Research Award for the 4th year student who achieves the highest grades in the research project units of the course.



Professor Brian Brown conducting research in the 1980s.





Staff

Professional staff

Julie Anderson
Adele Birks (School Coordinator)
Catherine Foster
Robyn Sutton

Clinic staff

Harry Grzes
Tina Huynh (Clinic Coordinator)
Pam Vorias

Research staff

David Alonso-Caneiro
Laura Bentley
Ines Cahill
Trent Carberry
Samuel Cheung
Brett Davis
Samaneh Delshad
Jared Hamwood
Luisa Holguin Colorado
Seyed Hoseini Yazdi
Amy Johnson

Callula Killingly
Jason Kugelman
Hamish McNeill
Kylie McNeill
Pryntha Rajasingam
Alyra Shaw
Marwan Suheimat
Hoang Tran
Sekar Ulaganathan
Prajna Vidyasagar
Fan Yi

Sessional staff

Sandra Au
Celia Bloxsom
Edward Burgin
Rachel De Leon
Ashim Dey
Ruvini Dissanayake
Katie Dwyer
David Foresto
James Fuss
Cheryn Goh
Cavelle Griffiths
Noel Harris
Mark Hinds
Mark Hoffmann

Jason Holland
Inez Hsing
Brittney Ismail
Dinesh Kaphle
Simon Lan
Courtenay Lind
Simon Little
Michelle Maynard
Marissa Megaloconomos
Josiah Murphy
Ngoc Tho Nguyen
Henry Nona
Candice Pearson
Emily Pieterse
Leisa Schmid
Fiona Stubbins
Peter Swann
Melinda Toomey
Elizabeth Vieritz
Roslyn Vincent
Daniel Vu
Bill Watson
Julie Weir
Ursula White
Katherine Whittaker

Higher degree research students

Khaled Al Rashah
Pradipta Bhattacharya
Dipesh Bhattarai
Rebecca Cox
Samaneh Delshad
Mahesh Dev
Sunila Dumpala
Damien Fisher
Kate Gifford
Amithavikram Rugvedi Hathibelagal
Rohan Hughes
Durgasri Jaisankar
Dinesh Kaphle
Vinay Kumar Nilagiri
Hamed Niyazmand
Zachery Quince
Swee Chai Teoh
Sekar Ulaganathan
Ursula White
Seyed Hosein Hoseini Yazdi
Ilyanoon Zahari
Nanyu Zhou

QUT Optometry Student Society Executive

Rory Dowdall (President)
Megan Finlay (Secretary)
Sarah Ha
Tina Hung
Rachael Larnar (Treasurer)
James Lee
Danica Liu (Vice-President)
Jordan Marr
Beom Suk (Jake) Oh
Jessie Phan
Louis (Kryton) Skokidis
Amy Tan
Anita Tran
Shona Trang



Queensland Optometry Student Society ('QOSS') Executive 2018 – dodgeball event.

Supporters

Aussie Optical
WHERE QUALITY AND SERVICE MEET



CooperVision™
Live Brightly.



essilor

HOYA

Johnson & Johnson
Vision Care



SHAMIR

**TELFORD
OPTICAL**





Annual Report 2018

School of Optometry and Vision Science



a university for the real world®