Acknowledgement
OF TRADITIONAL OWNERS

The QUT School of Optometry and Vision Science acknowledges the Turrbal and Yugara, as the First Nations owners of the lands where QUT now stands. We pay respect to their Elders, lores, customs and creation spirits. We recognise that these lands have always been places of teaching, research and learning.

QUT acknowledges the important role Aboriginal and Torres Strait Islander people play within the QUT community.
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The School of Optometry and Vision Science can be extremely proud of another impressive year of achievements, both in the education of our students and in research and service to the university and community, in 2021. Our staff and students have faced the usual challenges of academic life, but with the additional pressures associated with the Covid pandemic throughout the year, that has impacted everyone’s lives in so many ways.

Our undergraduate students have done a great job in successfully completing the year despite the many added demands posed by the pandemic. Online learning can only partially replace the rich experiences of face-to-face learning and the daily interactions with fellow students and teaching staff. Clinical training also created many challenges for our students, particularly, with the uncertainties associated with clinical
placements. A special thanks to our clinic coordinator Daniel Vu, the sessional clinical teaching staff, academic staff, and the clinical placement providers (WILS) who worked so tirelessly to ensure that our students met their course requirements.

The PhD and MPhil students have also had to struggle with limitations imposed by the pandemic. Their ability to conduct clinical research has been restricted and they have been unable to showcase their excellent research at conferences. I know that the hardest challenge for many of them has been the inability to travel and see their family and friends, both interstate and overseas. You all deserve our greatest respect for your achievements this year.

Our Head of School, Professor Sharon Bentley was promoted to Deputy Dean of the Faculty of Health in early 2021. Sharon was highly respected by the staff and students of the school for her leadership and integrity and the kindness and respect she always gave to her staff and students. We were proud to see her abilities recognised with this promotion. While we were sorry to lose her from the Head of School role, she still retains strong links to the school through her position as Director of the Centre for Vision and Eye Research (CVER). Sharon embodied the values of the school: to act with kindness and integrity, to embrace collaboration, to foster curiosity and creativity and to strive for excellence.

Our academic and professional staff have been impressive in their efforts to ensure the delivery of a high-quality teaching program throughout the year. This has involved the development of numerous new blended and online learning approaches for teaching to maintain student engagement and provide the best learning opportunities for our students. We have had two academic staff promotions during the year that deserve special mention. Dr Alex Black was promoted to Associate Professor and Dr Shelley Hopkins was promoted to Senior Lecturer. Both promotions were well deserved and recognise the important contributions that Alex and Shelley make to our school. Three of our staff were also awarded Associate Fellowship (Indigenous) of the Higher Education Academy (AFHEA) including: Professor Sharon Bentley, Dr Shelley Hopkins and Associate Professor Katrina Schmid, along with PhD candidate Kate Pecar.
The school and CVER had another year of record performance in grant income (over $3M) and publications (105). We also had 8 PhD and 2 MPhil students graduate. We took great pride in the achievements of Professor Joanne Wood who was awarded the prestigious Collin Research Medal from Optometry Australia for her “outstanding contributions in vision, ageing and driving research over three decades”.

There have also been some very sad events for the school in 2021. Peter Tran, a 4th year student, passed away and is greatly missed by his friends here at QUT. We were also deeply saddened to have lost Peter Swann, a retired academic staff member of our school, who will be remembered as a legendary teacher and a great friend to many current and past staff of the school. To acknowledge Peter’s contributions to the teaching of clinical eye diseases at QUT over many decades, we have named a student prize in his honour. Tributes to them both follow later in this report.

We can take great pride in what we have collectively achieved as a school during such a challenging year. I’m very confident that we will continue to build on these outstanding achievements during the coming year. The vision statement of our school is “transforming how the world sees through education and research”. We should continue to focus on these high ideals as we strive for excellence in the coming year.

Professor Michael Collins
Acting Head of School
Academic Staff

Lecturer
Dr Prakash Adhikari

Professor
David Atchison

Professor Sharon Bentley
(Centre Director, CVER & Faculty Deputy Dean)

Associate Professor
Alex Black (Course Coordinator
Master of Optometry)

Senior Lecturer
Dr Andrew Carkeet (Academic
Lead Postgraduate Research)

Professor
Michael Collins
(Acting Head of School)

Senior Lecturer
Dr Katie Edwards
(School Research Ethics Advisor)
Professional Staff

Kym Adkinson
(Senior School Coordinator)

Nadia Marygold
(Executive Assistant)

Catherine Foster
(Laboratory Manager – Contact Lens and Visual Optics Laboratory)

Clinic Staff

Daniel Vu
(Acting Clinic Coordinator)

Harry Grzes
(Optical Dispenser)

Kylie Prince
(Optical Dispenser)
Honorary Appointments

ADJUNCT PROFESSOR

Emeritus Professor Ken Bowman AM

Emeritus Professor Leo Carney DSc (QUT)

Emeritus Professor Nathan Efron AC

Professor Mark Radford

Professor Christine Wildsoet
ADJUNCT ASSOCIATE PROFESSOR

Associate Professor Peter Hendicott

Associate Professor Kristopher Rallah-Baker

Associate Professor Ann Webber

VISITING FELLOW

Dr Julie Albeitz

Dr Kate Gifford

Ms Lauren Hutchinson
Teaching and Learning Highlights

The QUT School of Optometry and Vision Science offers the only Optometry program in Queensland. In 2021 entry to the program required an ATAR of 99, this included up to 10 rank adjustments. Many of our students are recent school leavers, while about one third of students have completed some university study.

In 2021 we further consolidated our flexible online blended teaching strategy while recognising that many of our students prefer a face-to-face on campus delivery mode. With few restrictions in Brisbane, we were able to maintain face-to-face clinical teaching, with only a few weeks of practical labs, clinics and some assessment having to be rescheduled. Associate Professor Katrina Schmid collaborated with academics of national and international optometry schools to publish work describing some of the modifications that were made to optometry teaching and assessment when university physical campuses were closed. The collective viewpoint was that this created the opportunity to positively...
transform some aspects of optometry teaching, but some aspects could not be replicated.

The school is committed to incorporating Indigenous Perspectives into the curriculum with three more academics, Dr Shelley Hopkins, Associate Professor Katrina Schmid and Ms Kate Pecar, being awarded Associate Fellowship (Indigenous) of the Higher Education Academy. This brings the number of optometry staff with this qualification to five. In addition, Dr Shelley Hopkins was part of the Cultural Safety and Indigenous Issues School Champions team that received a Vice Chancellor’s Excellence Award for increasing knowledge and application of culturally safe best practices within the Health Faculty.

Our on-campus optometry clinic provided more than 5,000 patient consultations during the year. We were extremely grateful to our many 2021 partner optometry and ophthalmology practices who continued to provide enriching placement opportunities to our students, including rural practice experience. QUT has listened to Industry Advisory committee recommendations, and entry to QUT courses from 2022 will include 2 bonus ranks as part of the Regional, Rural and Remote (RRR) adjustment scheme. This recognises that areas of Australia often have restricted or limited access to educational opportunities, resources and services compared with those available in cities or larger towns.

Sixty-eight students graduated from the Bachelor of Vision Science course and 56 graduated from the Master of Optometry course.

In 2022 our program undergoes reaccreditation with the Optometry Council of Australia and New Zealand, and we look forward to receiving their feedback. Our school will also be considering how to better incorporate concepts of Global Sustainability within our program in the coming year.
Bachelor of Vision Science Graduates

Ahmed, Rida
Bach, Uyen Ngoc Phuong
Cho, David
Chouchane, Ahmed
Delshad, Samaneh
Eskander, Jessica
Kim, Subin
Lay, Steven
Le, Adam
Ngo, Anh
Selman, Ali
Tam, Aaron
Vu, Dominic
Aji, Nichol With Distinction
Alam, Anika With Distinction
Alexander, Julian With Distinction
Belainehe Aweke, Yabkal With Distinction
Bhebhe, Zibonele With Distinction
Bormann, Christina With Distinction
Cai, Emily With Distinction
Choong, Janelle With Distinction
Cook, Eliot With Distinction
Coster, Jessica With Distinction
Dang, Janet With Distinction
Do, Anna With Distinction
Fang, Zhaopeng With Distinction
Feng, Sabrina With Distinction
Gao, Millur With Distinction
Herath, Navodya With Distinction
Huynh, Tina With Distinction
Ibraheemi, Mohammad With Distinction
Ilyas, Zikra With Distinction
Johnstone, Isaiah With Distinction
Kim, Hyerin With Distinction
Ko, Ava With Distinction
Li, Connie With Distinction
Lin, Haoze With Distinction
Lin, Yan Ki With Distinction
Loh, Song Jin With Distinction
Magee, Jack With Distinction

QUT Medallist GPA: 7.00

ANNUAL REPORT 2021
Maruyama, Elly
Mikhaiel, Andrew
Miu, Oscar
Nguyen, Thao Mimi
Penklis, Michael
Phan, Jasmine
Ryan, Isaac
Sandhu, Janvi
Saxby, Dannielle
Shauryamackal, Albin
Siong, Kimberly
Stevens, Alexandra
Stockton, Emma
Sy, Rafael Inigo
Thai, Ngoc Minh Anh
Tran, Alysha
Tran, Jessica
Truong, Fiona
Vu, Anna
Xu, John
Xu, Yiming
Yun, Mirae
Zainudin, Rina

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With Distinction
Master of Optometry Graduates

Ali, Faaizah
Chan, Zhi Yu
Chng, Jade
Collins, Jordan
Heffernan, Abby
Knight, Alix
Lee, Sean
Nguyen, An-Cao
Nguyen, Uyen
Pham, Stephen
Pham, Tien
Sanjika, Sholeen
Wan, Andrea
Alexander, Nadine With Distinction
Beecher, Lauren With Distinction
Bui, Cong With Distinction
Carson, Ellen With Distinction
Cheng, Yingxiang With Distinction
Chiem, Jasmine With Distinction
Edwards-Brown, Isabella With Distinction
Fiedler, Joshua With Distinction
Gan, Jamie Siew Wen With Distinction
Gorle, Amelia With Distinction
Harduwar, Kieran With Distinction
Ho, Steven With Distinction
Hong, Mike With Distinction
Jayaram, Sindhu With Distinction
Ko, Megan With Distinction
Kokubun, Sayo With Distinction
Lee, Jeongmin With Distinction
Lightfoot, Hannah With Distinction
Liu, Jiawen With Distinction
Lopez, Jenifer With Distinction
Lotter, Teah With Distinction
Nand, Nitansha With Distinction
Ng, Hui Qi Faith With Distinction
Nguyen, Anita With Distinction
Nguyen, Nhi With Distinction
Nguyen, Wendy With Distinction
Niemand, Jana With Distinction
Parker, Kristin With Distinction
Pei, Xiaoxue With Distinction
Pham, Daniella With Distinction
Roderick, Carly With Distinction
Roderick, Rachel With Distinction
Small, Leilah With Distinction
Spena, Celina With Distinction
Suhartono, Phylicia With Distinction
Tang, Daniel With Distinction
Ting, Marco With Distinction
Tran, Binh With Distinction
Tran, Chau With Distinction
Van Ling, Johannes With Distinction
Vu, David With Distinction
Westcott, Natasha With Distinction
Whyte, Corey With Distinction
As part of the Master of Optometry program, all students undertake a 12-month research project. The following projects were led by the academic staff:

**Prakash Adhikari: aQUT Contrast Sensitivity Chart in Eye Disease**
**Co-supervisors:** Andrew Zele, Beatrix Feigl, Drew Carter
**Students:** Jessica Eskander, Huiyi Fong, Emily Gunning, Ahmed Ibrahim, Matthew Nathan, Jessica Yare

**David Atchison: Vision Screening Using the Acuidrive Device**
**Co-supervisors:** Andrew Carkeet, Katrina Schmid
**Students:** Jai Bakshi, Alice Cunningham, Nathan Loy, Bianca Romea, Mai Hoang Troung
Sharon Bentley: Low Luminance Performance Based Measure for Age-Related Macular Degeneration  
**Co-supervisors:** Joanne Wood, Alex Black, Dinesh Venugopal  
**Students:** Lauren Kennedy, Rhea Kumar, Kate McLennan, Anna Spilsted, Sophie Walker, Theresa Xiang

Alex Black & Joanne Wood: Simulated Cataracts and Motion and Hazard Perception Tests relevant to Night-time Driving Visibility  
**Co-supervisor:**  
**Students:** Jenny Hong, Jasmine Jin, Ashvika Kathirgamanathan, Mimi Kim, Subin Kim, Grace Lee

Andrew Carkeet: Investigating the Effect of Aniseikonia on Visual Acuity  
**Co-supervisor:** David Atchison  
**Students:** Hanna Chaki, Matthew Ha, Hang-My Julie Dona Phan, Annabelle Seddon, Jessica Spink, Surini Wijesuriya

Michael Collins: Blur Adaptation Response to Diffuse and Defocus Blur  
**Co-supervisors:** Alyra Shaw, Swee Chai Teoh, Scott Read  
**Students:** Jamie Atkinson, Michael Baldwin, Jennifer Duong, Jessica Jones, Shu-Chi Lin, Hailey Tong

Katie Edwards: In-Vivo Corneal Dendritic Cell Dynamics  
**Co-supervisor:** Luisa Holgiun Colorado  
**Students:** Zack Bulow, Cody Daly, James Devereaux, Thien Huynh, Brandt Lewis, Wei Zhou

Shelley Hopkins: Effect of Different Turtle Shell Designs on Visual Perform  
**Co-supervisors:** Joanne Wood, Sharon Bentley  
**Students:** Garson Chin, Ray Chu, Wesley Lam, Antonio Shi, Dianne Shim

Emily Pieterse: Change in Axial Length During Accommodation with Myopia Control Soft Contact Lenses  
**Co-supervisors:** Rohan Hughes, Scott Read  
**Students:** Rebecca Dai, Trang Huynh, Tong Ouyang, Brooke Tran
Scott Read: The Influence of Contrast Polarity, Illumination, and Refractive Error on Blur Adaptation  
Co-supervisor: Hosein Hoseini-Yazdi  
Students: Rida Ahmed, Julia Anderson, Ngoc-Anh Pham, Hannah Soen, Lien-En Su, Mandy Truong

Katrina Schmid: Effect of Peripheral Blur on Near Induced Transient Myopia (NITM)  
Co-supervisor: David Atchison  
Students: Katsuhiko Gondo, Shi Ying Lim, Caroline Nguyen, Thach Nguyen

Stephen Vincent: Corneal Thickness and Surface Wettability Changes After Short-Term Reverse Piggyback Contact Lens Wear  
Students: Vyasa Bliss, Nathan Branjerdporn, Peng Jia Ooi, Li Mei Teo, Jervis Tu, Justin Yeh
QUT Optometry Student Society Executive

**President:** Hailey Tong  
**Vice-Presidents:** Jennifer Duong, Vyasa Bliss  
**Secretary:** Sophie Walker  
**Treasurer:** Wesley Lam  
**Academic Executive:** Nathan Branjerdporn

**Eyeball Executives:**  
Matthew Ha  
Jessica Jones  
Zack Bulow  
Thien Huynh  
Dianne Shim  
Nathan Loy

**Fundraising Executive:**  
Millur Gao  
Connie Li  
Ally Stevens  
Oscar Miu  
Nichol Aji  

**Social Executive:**  
**Media Executive:**  
**Sports Executive:**  
**Fourth Year Representatives:**
Student Awards

The following awards were presented earlier in the year at the Faculty of Health Awards Ceremony for achievement in the 2021 Academic Year.

- **CooperVision Australia Contact Lens Prize** (MOptom student with highest achievement in first year contact lens studies) – Peng Jia Ooi

- **Johnson & Johnson Vision Care Award** (MOptom student with highest achievement in second year contact lens studies) – Lauren Beecher

- **School of Optometry and Vision Science Peter Swann Award for Achievement in Eye Diseases** (BVisSci third year student with the highest academic achievement in the units Diseases of the Eye units 5 and 6) – Eliot Cook
• **School of Optometry and Vision Science Brian Brown Research Award** (MOptom student with the highest combined GPA in the units ‘Research Methods in Optometry and Vision Science’ and ‘Research Project’) – Li Mei Teo

• **Optometry Queensland and Northern Territory Highest Academic Achievement in First Year BVisSci Award** – Sanui Mehta

• **mivision Media Communication Award** (BVisSci student in the unit ‘Binocular Vision’ who designs the most innovative and engaging media communication tool that can be used in Optometry Practice) – Rafael Sy
• **Optometry Queensland and Northern Territory Highest Academic and Clinical Achievement in Final Year MOptom Award** – Kristin Parker

• **Australian College of Optometry 2021 Award** (Outstanding achievement in the BVisSci and MOptom program QUT) – Kristin Parker

**2021 Optometry Australia Student Leadership Program – QUT Participants**

The Optometry Australia National Student Leadership Program run annually provides students with the skills they need to become future leaders within the optometry profession. The program includes a variety of coaching sessions focusing on different models of leadership, understanding the purpose of leadership and clarifying guiding values. It is designed to ensure optometry’s emerging leaders have the skills to navigate the anticipated opportunities and challenges of a changing optometry landscape.

Congratulations to Julie Lee and Cong Bui who were accepted to participate in the 2021 program.
2021 continued to be a challenging year at the QUT Optometry Clinic due to the pandemic. The COVID environment presented obstacles throughout the year with clinic closures in late March, June and early August. The clinic maintained and regularly amended infection and COVID control protocols in alignment with government and QUT guidelines.

Even with the COVID restrictions, optometry students were able to participate in the Clinic’s Outreach programs – a total of 12 visits to Cherbourg with CRAICCHS and NCACCH. Students also participated in OneSight partnered programs travelling to Townsville, as well as Adelaide. Closer to home, QUT students were able to provide a day of vision screenings to migrant and refugee students at Milperra State High School.

Building on the links with the RBWH Glaucoma Collaborative Care Clinic, the clinic is developing referral pathways for Dry Eye disease and management. The clinic is also consolidating ties
with Queensland Children’s Hospital, as well as Mater Hospital’s Refugee Complex Care Clinic, benefiting the students’ learning experiences in specialist optometry clinics.

To bolster student learning experiences, new instruments including the state-of-the-art Nidek optical coherence tomographer and Zeiss IOL Master 700 were purchased for the clinic. All consultation rooms were upgraded with digital acuity charts and additional computers installed to cater for increased student numbers in 2022.

The Clinic is proud of its involvement in research, with 7 PhD/Master of Optometry research projects conducted in the clinic during 2021.

Lastly, the clinic staff congratulates the class of 2021, completing their Master of Optometry through dedication, endurance, and adaptability throughout the 2 years of uncertainty of the pandemic. This was undoubtedly the highlight of the year for the clinic in 2021.
We acknowledge our dedicated sessional teaching staff who provide exceptional learning experiences for our students.

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<tr>
<th>Sandra Au</th>
<th>Mark Hinds</th>
<th>Mark Overton</th>
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<tr>
<td>Laura Bentley</td>
<td>Luisa Holguín Colorado</td>
<td>Kate Pecar</td>
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<td>Felicity Berkley</td>
<td>Kirrily Hoole</td>
<td>Leah Pettit</td>
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<td>Pradipta Bhattacharya</td>
<td>Yan Hsing</td>
<td>Asik Pradhan</td>
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<td>Celia Bloxsom</td>
<td>Rohan Hughes</td>
<td>Prynthia Rajasingam</td>
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<td>Durgasri Jaisankar</td>
<td>Kristopher Ramon</td>
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<td>Edward Burgin</td>
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<td>Sarah Coudrey</td>
<td>Simon Lan</td>
<td>Alyra Shaw</td>
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<td>Rebecca Cox</td>
<td>Courtenay Lind</td>
<td>Drew Sherwin</td>
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<td>Samaneh Delshad</td>
<td>Simon Little</td>
<td>Ada Tang</td>
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<td>David Foresto</td>
<td>Kylie McNeill</td>
<td>Dinesh Venugopal</td>
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<td>Subodh Gnyawali</td>
<td>Marissa Megaloconomos</td>
<td>Elizabeth Vieritz</td>
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<td>Cheryn Goh</td>
<td>Terry Nguyen</td>
<td>Daniel Vu</td>
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<td>Jocelyn-Kate Henderson</td>
<td>Vinay Kumar Nilagiri</td>
<td>Ann Webber</td>
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<tr>
<td>Emily Henry</td>
<td>Hamed Niyazmand</td>
<td>Lesley Williams</td>
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<tr>
<td>Gregory Hindmarsh</td>
<td>Thomas Nugent</td>
<td>Kevin Yow Yeh</td>
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In Memoriam

PETER SWANN

In 2021, it was with great sadness that we mourned the passing of Associate Professor Peter Swann, a brilliant educator and clinician and a great friend to so many in the optometry profession.

Peter was appointed as an academic staff member of School of Optometry at the then Queensland Institute of Technology in 1970, following completion of an Optometry degree at the University of Aston in Birmingham and a Fellowship of the British College of Optometrists. Peter served as an academic staff member at QUT for 37 years, being promoted to Associate Professor in recognition of his exceptional teaching and university service and retaining the honorary title of Adjunct Professor on his retirement.

Throughout his long and outstanding career, Peter was dedicated to sharing his love of clinical optometry and his remarkable knowledge of eye diseases with generations of optometry students and practitioners alike. A truly gifted teacher, he shared his expertise in diseases of the eye and clinical methods of eye examination, logically, clearly and with incredible passion. However, while it appeared effortless, his relaxed style belied hours of meticulous reading, preparation, and practise. He was honoured with the Australian Award for Excellence in University Teaching in 2001. An exceptional teacher, both undergraduates and practising optometrists benefited from the hundreds of lectures and workshops he delivered at conferences in Australia and across the world. Peter’s lectures were a draw card at any conference! Peter was also a prolific and highly respected author, best known for his meticulously researched clinical case reports, which imbued readers with the same sense of curiosity and interest in eye diseases as did his lectures. Peter made an outstanding contribution to the teaching of optometry and to the profession as a whole, and is greatly missed.

By Joanne Wood
rejoiced in his loved ones’ achievements as if they were his own, was never resentful and was always kind. While the loss of Peter will always be tragic, he will always be remembered for his unique sense of humour, his compassion, his fancy wardrobe, and the joy he brought to us every day. To know Peter was to love Peter. We will be forever grateful of the lasting impact Peter has had on all our lives, and treasure and celebrate his memory.

By Bianca Romeo, Alice Cunningham and Mai Tien Truong
Awards, Promotions and Recognition

QUT AWARDS

- Alex Black, Academic Promotion to Associate Professor

- Shelley Hopkins, Academic Promotion to Senior Lecturer and Vice Chancellors Excellence Awards – Shelley was a member of the winning team titled “Cultural Safety and Indigenous Issues School Champions” for increasing knowledge and application of culturally safe practices within the Faculty of Health.
EXTERNAL AWARDS

Professor Sharon Bentley was awarded Honorary Life Membership of the Australian College of Optometry (ACO). “This is the ACO’s most prestigious award to acknowledge individuals who have provided distinguished and meritorious service to the optometry profession in and outside of the ACO. Honorary Life Members are held in high esteem for their work and have been influential in the community, having earned the respect and recognition of their colleagues.”
Adjunct Associate Professor Peter Hendicott and former Head of School of Optometry and Vision Science at QUT was appointed as President of the World Council of Optometry. Associate Professor Hendicott is only the second Australian to lead the World Council of Optometry in its 94-year history. With the goal of working towards increased recognition, improved education and regulation of optometry, Associate Professor Hendicott is committed to guiding the World Council of Optometry to support the ongoing global promotion of eye health and vision care as a human right. He will also focus his tenure as President on the increasing eye health needs of ageing populations around the world.

**RESEARCH AWARDS**

Professor Joanne Wood is the 15th recipient of the H Barry Collin Research Medal for outstanding contributions in vision, ageing and driving research over three decades. The award is named after Professor H Barry Collin, long-serving former Editor-in-Chief of Optometry Australia’s journal, Clinical and Experimental Optometry and includes a $5,000 prize, with the recipient submitting a paper for publication in the Clinical and Experimental Optometry journal.
**TEACHING AND LEARNING AWARDS**

**Associate Fellow Higher Education Academy (Indigenous)**

Professor Sharon Bentley

Ms Barsha Lal

**Fellow Higher Education Academy**

Ms Marissa Megaloconomos

**Associate Fellow Higher Education Academy (Indigenous)**

Associate Professor Katrina Schmid

**Associate Fellow Higher Education Academy (Indigenous)**

Mr Dinesh Kaphle

**Associate Fellow Higher Education Academy**

Mr Damien Fisher

**Associate Fellow Higher Education Academy (Indigenous)**

Dr Shelley Hopkins

Ms Kate Pecar
Centre for Vision and Eye Research
In recognition of the strength and impact of vision and eye research at QUT, the Centre for Vision and Eye Research (CVER) was established as a QUT Tier 2 research centre in 2020.

The vision of CVER is to ‘transform the way the world sees’ through ground-breaking research. We focus on developing new technologies to correct and enhance vision, advancing devices to detect eye disease and avoid vision impairment, creating novel methods of ocular tissue repair and reducing the impact of vision impairment on everyday function across the lifespan, to deliver tangible benefits to society, inclusive of people experiencing inequities. To accomplish this, CVER brings together a well-established team of scientists and clinicians from the School of Optometry and Vision Science, and from engineering, biomedical sciences and psychology.

Undeterred by the challenges and disruptions of the global COVID-19 pandemic from its inception, CVER outputs during the first full year of operation in 2021 were excellent and surpassed expectations, which attests to the robustness, dedication, and talent of the stellar CVER team.

There were many notable highlights, just some of which are noted in this report.

Professor Joanne Wood was awarded the prestigious Collin Research Medal from Optometry Australia for her, “outstanding contributions in vision, ageing and driving research over three decades.”

We continued our partnerships and engagement with industry. Professor Michael Collins and his team in the Contact Lens and Visual Optics laboratory have had an ongoing research program with Johnson and Johnson Pty Ltd (USA) since 1998. This program has resulted in over $22M in funding to QUT and 21 issued US patents. Professor Joanne Wood and Assoc Prof Alex Black have a new industry project valued at over $1M in collaboration with the multinational Allergan corporation (based in the USA) to study ocular drug effects on driving performance.
CVER joined with the Hong Kong Polytechnic University, School of Optometry and Vision Science to jointly host a weekly series of online research seminars delivered by academics and higher degree research students from both centres to scientists and clinicians from around the world.

These seminars attracted over 1500 participants and provided an excellent opportunity for our higher degree research students to gain experience and exposure to a world-wide audience.

Several CVER researchers were involved with the International Myopia Institute (IMI; https://myopiainstitute.org/) that was formed to address the increasing levels of myopia worldwide.

IMI is comprised of global experts (including our Centre’s Associate Professor Scott Read, Associate Professor Katrina Schmid, Dr Kate Gifford, Professor David Atchison, Professor Christine Wildsoet and Professor Michael Collins) who convened to discuss, debate and make available the latest evidence-based recommendations in classifications, patient management, and research, in the form of the IMI

Early in 2021, a team of researchers from CVER including Associate Professor Scott Read, Dr Shelley Hopkins, Associate Professor Alex Black, Professor Joanne Wood and Professor Sharon Bentley, along with Professor John Scott (School of Justice) and Mr Ali Drummond (School of Nursing) visited the First Nations community in Bamaga (Cape York) to provide eyecare for 250 children and undertake research in local schools. A return visit provided fully subsidised spectacles for those children with vision problems. A report was provided to local community schools, healthcare providers and to the Council to raise awareness about eye health and local eyecare needs. The activity was supported by a Faculty of Health Law grant, Bamaga Enterprises Ltd, OneSight, CheckUP and Northern Peninsula Area State College.

Finally, we are leading an initiative that has representation from all optometry and vision science programs across Australia and Aotearoa/New Zealand, the ‘Leaders in Indigenous Optometry Educators Network (LIOEN)’, with a key priority being to attract and support First Nations students and grow the pipeline of First Nations vision and eye research academics.

My congratulations and thanks to the CVER team for an impressive 2021.

Professor Sharon Bentley
Director, Centre for Vision and Eye Research
Research Highlights

Our research focuses on technological advances in the treatment and management of vision problems; the diagnosis, assessment and treatment of eye and vision disorders; and the functional impacts of vision impairment. Despite the challenges associated with undertaking research during the COVID-19 global pandemic again during 2021 our CVER researchers published over 100 articles in scholarly journals, delivered more than 20 virtual and face to face conference presentations, and were awarded over $3 million in research funding.

**OUR OUTPUT AND IMPACT**

Our research publications have continued to increase over the past five years. Field-Weighted Citation Impact (FWCI) is a measure of research impact. A FWCI of one indicates that the number of citations for a paper equals the global average of publications in the field of Optometry and Vision Science. The 2021 FWCI for papers from the School of Optometry and Vision Science is 1.56, which indicates that its publications are cited 56% more often than the global average in the field.
OUR REACH: NUMBER OF CITING COUNTRIES

Using the Scopus publications (2015-2020), the number of citing countries identified is 81.

OUR COLLABORATIONS

We collaborate with researchers from across the world.

FIGURE: MAP OF COLLABORATING INSTITUTIONS FROM 2018 AS CALCULATED IN SCIVAL, PRODUCED IN GOOGLE MY MAPS BASED ON SCOPUS DATA UP TO 28 MARCH 2022.

FIGURE: TOP TEN CITING COUNTRIES 2015-2020, CALCULATED IN SCOPUS UP TO 15 APRIL 2021.
OUR RESEARCH STRENGTHS

- Advanced methods for imaging the eye
- Anterior eye assessment and treatment
- Children’s vision
- Contact lenses
- Indigenous eye health
- Melanopsin photoreception and visual science
- Myopia and its prevention and control
- Novel methods for the early detection and management of eye disease
- Ocular biomarkers of systemic disease
- Ocular cell biology
- Optics of the eye and imaging
- Vision and driving
- Vision and everyday function
OPTICS OF THE EYE AND IMAGING

Work has continued with the retinal holographic setup. We have been investigating the effect of meridional magnification on stereopsis and differences between providing the magnification optically through lenses or digitally on a screen. An OCT instrument operating at a long wavelength has been used to determine changes in ciliary muscle thickness and length; these are being correlated with changes in peripheral axial length and choroidal thickness. Some autorefractors are used for determining peripheral refraction without any consideration of the validity of doing this; our work has determined the principles of the instrument and that it is reasonable to make these measurements with it. Collaboration with a Chinese group continued with studies on the association of colour vision deficiencies with the development and progression of myopia in children and the success of an SMS intervention, designed to get children outside more, to slow progression of myopia.
THEORETICAL AND PRACTICAL VISION GROUP

It’s been a great inaugural year for the Theoretical and Practical Vision Group. Our successes show our core strengths of leveraging mathematical models to improve clinical techniques in Vision Science.

Group leader Dr Andrew Carkeet has developed a new computer-controlled technique for measuring astigmatism, with research published in Ophthalmic and Physiological Optics. PhD Student, Barsha Lal has her first major publication in the prestigious American Journal of Ophthalmology, using optical modelling and clinical measurements to show the effects of changing the eye’s power on measuring retinal blood flow. This research is important. It discusses important artefacts in monitoring retinal blood flow and provides tools for correcting them. Barsha also presented to the Association for Research in Vision and Ophthalmology (ARVO) meeting her ground-breaking work on diurnal changes in retinal blood flow.

Asik Pradhan commenced his PhD studies in 2021 and has made significant advancement in imaging processing techniques for extracting crystalline lens shape. He will be presenting this work to the 2022 ARVO meeting. Andy Christiansen finished his data collection for his MPhil on ocular allergies in a regional practice. The Fourth-year student project group Anabelle Seddon, Hanna Chaki, Jessica Spink, Matthew Ha, Hang-My Phan and Surini Wijesuriya, were awarded the OQNT prize for best project presentation for their work demonstrating that visual acuity is affected by having different sized retinal images in each eye.
The Contact Lens and Visual Optics laboratory had another successful year in 2021, building upon the commitment to excellence of our staff and HDR students. Thirty-eight refereed papers were published by members of the laboratory, along with 15 conference presentations, with these publications already making a significant impact, with over 80 citations, and a field weighted citation impact of ~2. Two of our HDR students, Damien Fisher and Swee Chai Teoh, were awarded their PhDs. Damien for his thesis titled “The influence of scleral lens parameters and fitting characteristics on corneal oedema under open and closed eye conditions” and Swee Chai for her thesis, “The eye’s response to defocus and diffuse blur”.

Stephen Vincent gave his Dallos Award lecture at the British Contact Lens Association Virtual Clinical Conference, in June on the topic “The impact of short-term fenestrated scleral lens wear on intraocular
pressure”. This was a fitting acknowledgement for Stephen’s excellent research achievements in the field of scleral contact lenses.

The laboratory received funding from a diverse range of companies and funding bodies including the Ophthalmic Research Institute of Australia, an NHMRC Ideas Grant, Prohibition X (Singapore), Johnson and Johnson Vision Care (USA), Johnson and Johnson Surgical Vision (USA), Dopavision (Germany), Cylite (Australia), Azura Ophthalmics (Israel) and the Children’s Hospital Foundation.
VISION AND EVERYDAY FUNCTION

In 2021, the research team, led by Professor Joanne Wood and Associate Professor Alex Black, continued to work on a range of government, industry and university-funded projects, delivered presentations at a range of online national and international conferences and had over 20 papers published or accepted on topics including visual impairment and driving, vision and falls safety, night-time driving and children’s vision. The team were also involved in a research visit in early 2021 to remote communities in Far North Queensland to undertake vision assessments for primary and high-school children.

The team also continued to develop their national and international profile in a range of areas including driving safety among older adults (collaborations with Professor Kaarin Anstey, UNSW, Australia and Professor Cynthia Owsley, UAB, USA), night-time driving and road lighting (collaboration with Professor Stephan Volker, TU Berlin, Germany), pedestrian and cycling safety at night (collaboration with Professor Fiona Fylan, Leeds Beckett University, UK), and vision and falls safety (collaboration with Professor David Elliott, Bradford, UK).
Two PhD Students graduated from the team, and one new PhD student commenced work on the development of assessments for night driving. The ongoing focus of research continues to be on the specific visual challenges of night driving and developing solutions to improve the safety of night-time driving, walking and cycling and is funded by an Australian Research Council grant.

Throughout 2021, the Anterior Eye Laboratory has continued research into cellular level changes at the ocular surface, in both ocular and systemic disease, using in-vivo confocal microscopy. 2021 was an active year for PhD students in the Anterior Eye Lab with Mr Pradipta Bhattacharya (“The corneal epithelium in health and disease”) and Dr Ilya Zahari (“Effects of chemotherapy on the ocular surface and its relationship to peripheral neuropathy”) both presenting their final seminar and submitting their theses. In September Dr Nanyu Zhou was awarded her PhD (“Imaging of the Ocular Surface with Relevance to Meibomian Gland Dysfunction”). In July, Associate Professor Karina Schmid was awarded funds from the Queensland University of Technology for the purchase of a Topcon digital slit lamp and camera. This will support future research in the ocular surface at Anterior Eye Laboratory. In December, Dr Luisa Holguin Colorado was awarded an EyeFind Research Grant for the project “Corneal epithelial dendritic cells: An association between in vivo corneal confocal microscopy and immunohistology”. This award is supported through a partnership between The Association for Research in Vision and Ophthalmology and The Eye Bank Association of America.
OCULAR CELL BIOLOGY

During 2021 the Ocular Cell Biology (OCB) research group under the leadership of Professor Damien Harkin has continued to build collaborative links within the Centre for Vision and Eye Research, especially wherever assistance is required with acquisition and analysis of ocular tissue samples. Examples of these projects include development of a holographic imaging technique for structures within the eye (led by Professor David Atchison and Dr Stanislovas Zacharovas) and mechanical testing of corneal tissue (by PhD student Mr Zach Quince). Our group has also continued to collaborate with members of the Anterior Eye Lab (Associate Professor Katrina Schmid, Dr Katie Edwards and Dr Luisa Holguin-Colorado), leading to a further publication and PhD completion (Dr Pradipta Bhattacharya). The core activities of the OCB group during 2021 have been establishment of a national consortium investigating the clinical characteristics and molecular markers of iridocorneal endothelial (ICE) syndrome in Australia, and our contribution to BIENCO; an Australian consortium of scientists, clinicians and tissue bankers, developing bioengineered tissue substitutes for the treatment of corneal blindness (an MRFF-funded project led by the University of Sydney).
MELANOPSIN PHOTORECEPTION AND VISUAL SCIENCE

The Melanopsin Photoreception and Visual Science research group is a top international laboratory focussed on basic and clinical studies of the image and non-image forming functions of the melanopsin pathway. The team is co-led by ARC Future Fellow Professor Andrew J. Zele and Associate Professor Beatrix Feigl (School of Biomedical Sciences and Queensland Eye Institute).

During the past year the team patented a new lighting technology (Zele, Carter, Feigl). We optimised methods for isolating melanopsin-directed visual and non-visual responses (Uprety, Zele, Feigl, Cao, Adhikari) and determined that melanopsin photopigment regeneration is \(~3.4\times\) slower than the cone-opsin and \(~1.2\times\) faster than rhodopsin regeneration (Pant, Zele, Feigl, Adhikari).

Our clinical research established that supplemental bright light therapy can improve daytime sleepiness in people with type II diabetes with no diabetic retinopathy (Adhikari, Pradhan, Zele, Feigl). We revealed that hypersensitivity to light is driven by melanopsin and cone luminance inputs to the cortex via the retinothalamocortical pathway in healthy observers. Migraineurs are however more susceptible to photophobia in bright lighting due to supranormal melanopsin function (Zele, Dey, Adhikari, Feigl).

In a significant advance in vision testing, Dr Prakash Adhikari led the design and validation of a QUT developed optometric chart (Adhikari, Carter, Feigl, Zele). It delivers a combined assessment of visual acuity and spatial contrast sensitivity to afford higher sensitivity to early vision loss and can provide direct benefit and new strategies for vision screening.

Our TGA regulated phase-II Michael J Fox Foundation clinical trial on photoreceptor-directed light therapy in Parkinson’s disease (led by Principal Investigator Associate Professor Beatrix Feigl, Co-CI Professor Andrew Zele) has successfully achieved the first-year milestones, including recruitment targets and participant completions of the 6-week trial. We welcomed Postdoctoral Fellow, neuroscientist Dr Manuela Russo to the clinical trial team and who works alongside Subodh Gnyawali and Drew Carter.
Associate Professor Beatrix Feigl is a member of the DVC-Research working group on “Reimagining Research Assessment at QUT” as the Faculty of Health nominee. Professor Andrew Zele is a member of the Australian Research Council (ARC) Medical Research Advisory Group and of the Human Centric Lighting working group of the Lighting Council of Australia.

IMAGE: THE QUT VISUAL ACUITY AND SPATIAL CONTRAST SENSITIVITY CHART (ADHIKARI, CARTER, FEIGL AND ZELE)
Centre for Vision and Eye Research Staff

Prakash Adhikari
David Alonso-Caneiro
David Atchison
Sharon Bentley
Laura Bentley
Alex Black
Shuva Bose
Andrew Carkeet
Leo Carney
Drew Carter
Michael Collins
Damian Cuda
Janet Danaher
Samantha Dando
Abbey Davis
Brett Davis
Sanet Johanna De Villiers
Katie Edwards
Nathan Efron
Beatrix Feigl
Damien Fisher
Catherine Foster
Francisco Yoel Garcia Marin
Kate Gifford
Damien Harkin
Emily Henry
Gregory Hindmarsh
Luisa Holguin Colorado
Kirrily Hoole
Shelley Hopkins
Seyed Hosein Hoseini-Yazdi
Rohan Hughes
Durgasri Jaisankar
Dinesh Kaphle
Jason Kugelman
Hamish McNeill
Joshua Muller
Hamed Niyazmand
Emily Pieterse
Scott Read
Katrina Schmid
Alyra Shaw
Marwan Suheimat
Swee Chai Teoh
Hoang An Tran
Ignacio Viedma Escalona
Stephen Vincent
Ann Webber
Natasha Westcott
Christine Wildsoet
Anthony Wingard
Joanne Wood
Naohide Yamamoto
Fan Yi
Stanislovas Zacharovas
Andrew Zele
Grants

NAMES: Atchison DA, Lambert A, Suheimat M
TITLE: Relationship of retinal directionality to human retinal anatomy variations
FUNDING SOURCE: ARC Discovery Project (DP190103069)
DURATION OF FUNDING: 2019-2021
TOTAL FUNDS: $425,000

NAMES: Anstey K, Wood JM, Delbaere K, Bedard M, Brown, Kiely K, Clare L, Lung T
TITLE: Driving longer and better: Evidence-based interventions for older drivers
FUNDING SOURCE: NHMRC Project grant APP156940
DURATION OF FUNDING: 2019-2023
TOTAL FUNDS: $918,549

NAMES: Bentley S, Hughes R
TITLE: Prescription of oral medication by optometrists
FUNDING SOURCE: Optometry Australia
DURATION OF FUNDING: 2020-2021
TOTAL FUNDS: $4,000
<table>
<thead>
<tr>
<th>NAMES</th>
<th>TITLE</th>
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<th>DURATION OF FUNDING</th>
<th>TOTAL FUNDS</th>
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<tr>
<td>Collins MJ, Shaw AJ, McNeill H</td>
<td>CR-6423 Clinical trial</td>
<td>Commercial - Johnson and Johnson Vision Care (USA)</td>
<td>2020-2021</td>
<td>$221,870</td>
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<td>Chang J, Alonso-Caneiro D, Mackey D</td>
<td>Applying machine learning to efficiently analyse fundus autofluorescence images in preparation for gene therapy</td>
<td>Ophthalmic Research Institute of Australia (ORIA) Project grant</td>
<td>2020-2021</td>
<td>$43,736</td>
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<td>Collins MJ, McNeill H</td>
<td>Steele project</td>
<td>Commercial - Johnson and Johnson Surgical Vision (USA)</td>
<td>2020-2021</td>
<td>$97,974</td>
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<tr>
<td>Collins MJ, Read SA, Hoseini-Yazdi H</td>
<td>Applying machine learning to efficiently analyse fundus autofluorescence images in preparation for gene therapy</td>
<td>Commercial - Dopavision (Germany)</td>
<td>2020-2021</td>
<td>$54,108</td>
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</table>
**NAMES:** Collins MJ, Yi F, Davis B  
**TITLE:** Optical design  
**FUNDING SOURCE:** Commercial - Prohibition X (Singapore)  
**DURATION OF FUNDING:** 2020-2021  
**TOTAL FUNDS:** $78,873

**NAMES:** Collins MJ, Yi F, Davis B  
**TITLE:** Myopia visual optics  
**FUNDING SOURCE:** Commercial - Johnson and Johnson Vision Care (USA)  
**DURATION OF FUNDING:** 2020-2021  
**TOTAL FUNDS:** $529,412

**NAMES:** Feigl B, Zele AJ, Kerr GK, Lewis S  
**TITLE:** Photoreceptor-directed light therapy in Parkinson’s disease  
**FUNDING SOURCE:** Michael J. Fox Foundation  
**DURATION OF FUNDING:** 2020-2023  
**TOTAL FUNDS:** $856,096

**NAME:** Hopkins S  
**TITLE:** Evaluation of school-based eye care programs  
**FUNDING SOURCE:** Optometry Australia LOOK scholarship  
**DURATION OF FUNDING:** 2020-2021  
**TOTAL FUNDS:** $4,000

**NAMES:** Hopkins S, Wood JM, Bentley S, Seevick J  
**TITLE:** Bridging the cultural gap: a visual acuity chart for accurate assessment of vision in First Nations children  
**FUNDING SOURCE:** IHBI Strategic Grants - General Public Donations  
**DURATION OF FUNDING:** 2021  
**TOTAL FUNDS:** $29,794

**NAMES:** Hughes R, Collins MJ, Vincent SJ, Read SA, Pieterse E  
**TITLE:** The effect of atropine on ocular changes during accommodation in myopic children  
**FUNDING:** Children’s Hospital Foundation  
**TOTAL:** $77,862
NAME: Holguín Colorado L  
TITLE: Corneal epithelial dendritic cells: An association between in vivo corneal confocal microscopy and immunohistology  
FUNDING SOURCE: EyeFind Research Grant  
DURATION OF FUNDING: 2021  
TOTAL FUNDS: $7,000

NAME: Kalloniatis M, Zangerl B, Alonso-Caneiro D, Khuu S  
TITLE: Predicting visual function from structural data in health and ocular disease  
FUNDING SOURCE: NHMRC Ideas Grant  
DURATION OF FUNDING: 2020-2023  
TOTAL FUNDS: $476,548

NAME: Read SA  
TITLE: Image analysis project  
FUNDING SOURCE: Commercial - Confidential  
DURATION OF FUNDING: 2020-2021  
TOTAL FUNDS: $106,300

NAME: Read SA, Vincent SJ  
TITLE: A multicenter, vehicle-controlled, randomized study to evaluate the safety, tolerability, systemic pharmacokinetics, and pharmacodynamics of AZR-MD-001 in patients with meibomian gland dysfunction (MGD) and evaporative dry eye disease (DED)  
FUNDING SOURCE: Commercial - Azura Ophthalmics  
DURATION OF FUNDING: 2019-2021  
TOTAL FUNDS: $267,184

NAME: Read SA, Vincent SJ  
TITLE: A multicenter, vehicle-controlled, randomized study to evaluate the safety, tolerability, systemic pharmacokinetics, and pharmacodynamics of AZR-MD-001 in patients with meibomian gland dysfunction (MGD) and evaporative dry eye disease (DED)  
FUNDING SOURCE: Commercial - Azura Ophthalmics  
DURATION OF FUNDING: 2019-2021  
TOTAL FUNDS: $267,184

NAME: Read SA, Vincent SJ  
TITLE: A multicenter, vehicle-controlled, randomized study to evaluate the safety, tolerability, systemic pharmacokinetics, and pharmacodynamics of AZR-MD-001 in patients with meibomian gland dysfunction (MGD) and evaporative dry eye disease (DED)  
FUNDING SOURCE: Commercial - Azura Ophthalmics  
DURATION OF FUNDING: 2020-2021  
TOTAL FUNDS: $45,084
**NAMES:** Read SA, Wood JM, Hopkins S, Scott J  
**TITLE:** Providing children’s vision testing services in remote Cape York and Torres Strait Islander communities  
**FUNDING SOURCE:** QUT Health Law Collaborative Seed Funding  
**DURATION OF FUNDING:** 2020-2021  
**TOTAL FUNDS:** $22,931

**NAMES:** Wood JM, Black AA  
**TITLE:** Effect of LED streetlight levels and colour on night driving performance  
**FUNDING SOURCE:** Transport and Main Roads; Dept Transport & Infrastructure (SA)  
**DURATION OF FUNDING:** 2020-2021  
**TOTAL FUNDS:** $150,000

**NAMES:** Wood JM, Black AA  
**TITLE:** Night driving  
**FUNDING:** Allergan Australia Pty Ltd  
**TOTAL:** $1,152,422

**NAMES:** 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:** ARC Discovery (DP190103141)  
**DURATION OF FUNDING:** 2019-2021  
**TOTAL FUNDS:** $399,458

**NAME:** Zele AJ  
**TITLE:** Vision and lighting in the age of melanopsin  
**FUNDING SOURCE:** ARC Future Fellowship  
**DURATION OF FUNDING:** 2018-2021  
**TOTAL FUNDS:** $1,107,541
Peer-Reviewed Articles in Scholarly Journals


91. Webber AL, Sharwood P. (2021). Practical use and prescription of ocular medications in children and infants. Clinical & Experimental Optometry,
104(3):385-395.
Refereed Conference Papers


Non-refereed Articles

Presentations at Conferences


10. Quince Z, Alonso-Caneiro D, Read SA, Collins MJ. Optical coherence elastography for the measurement of ocular biomechanics. Herston


19. Wood JA. Ageing, visual impairment and driving. LV Prasad Eye Institute, Elderly eye care: Towards a better Quality of Life Meeting, India, September 2021.


Higher Degree Research Completions

NAME: Rebecca Cox  
QUALIFICATION: PhD  
PROJECT: Vision and ocular characteristics of Australian Indigenous children  
SUPERVISORS: Wood JM, Hopkins S, Read SA

NAME: Damien Fisher  
QUALIFICATION: PhD  
PROJECT: The influence of scleral lens parameters and fitting characteristics on corneal oedema under open and closed eye conditions  
SUPERVISORS: Vincent SJ, Collins MJ

NAME: Durgasri Jaisankar  
QUALIFICATION: PhD  
PROJECT: Influence of testing methods on the evaluation of peripheral ocular optics and peripheral visual performance  
SUPERVISORS: Atchison DA, Suheimat M
NAME: Mahesh Kumar Dev  
QUALIFICATION: PhD  
PROJECT: Low luminance vision and function in older adults with visual impairment from age-related macular degeneration  
SUPERVISORS: Wood JM, Black AA

NAME: Dinesh Kaphle  
QUALIFICATION: PhD  
PROJECT: Ciliary muscle function and accommodation in myopia  
SUPERVISORS: Schmid K, Atchison DA, Suheimat M

NAME: Vinay Kumar Nilagiri  
QUALIFICATION: PhD  
PROJECT: Subjective measurement of the Stiles-Crawford effect  
SUPERVISORS: Atchison DA, Suheimat M

NAME: Mukund Pant  
QUALIFICATION: MPhil  
PROJECT: Light adaptation of melanopsin photoreception and its interaction with cone signalling  
SUPERVISORS: Adhikari P, Feigl B, Zele AJ
NAME: Asik Pradhan  
QUALIFICATION: MPhil  
PROJECT: Supplemental light exposure for sleep disturbances associated with type 2 diabetes  
SUPERVISORS: Adhikari P, Zele AJ, Feigl B

NAME: Swee Chai Teoh  
QUALIFICATION: PhD  
PROJECT: The eye’s response to defocus and diffuse blur  
SUPERVISORS: Collins MJ, Read SA

NAME: Nanyu Zhou  
QUALIFICATION: PhD  
PROJECT: Imaging of the ocular surface with relevance to Meibomian gland dysfunction  
SUPERVISORS: Schmid K, Edwards K, Holguin Colorado L

PHD GRADUATE NANYU ZHOU
Current Higher Degree Research

NAME: Aniruddha Banerjee
PROJECT: Contributions of ipRGC, rod and cone pathways to alertness
SUPERVISORS: Zele AJ, Adhikari P, Feigl B

NAME: Emily Banks
PROJECT: Development of culturally appropriate distance and near visual acuity charts for First Nations children
SUPERVISORS: Hopkins S, Bentley SA, Wood JM

NAME: Pradipta Bhattacharya
PROJECT: The corneal epithelium in health and disease
SUPERVISORS: Schmid K, Edwards K, Harkin D

NAME: Andy Christiansen
PROJECT: Ocular allergy in a regional Australian setting
SUPERVISORS: Carkeet A, Bentley SA, Edwards K

NAME: Mahdi Heravian Shandiz
PROJECT: Towards a more efficient platform for analysing retinal images via machine learning
SUPERVISORS: Alonso-Caneiro D, Collins MJ, Read SA

NAME: Lirong Esther Ho
PROJECT: Role of macular pigment in pathological myopia
SUPERVISORS: Read SA, Alonso-Caneiro D, Neelam K, Chew Y, Chi L

NAME: Mark Hoffmann
PROJECT: Ocular surface findings in chronic whiplash-associated disorder
SUPERVISORS: Edwards K, Holguin Colorado L

NAME: Catherine Ann Kennon
PROJECT: Developing and validating a night-time driving hazard perception test: application of data-driven principles
SUPERVISORS: Wood JM, Black AA, Lacherez P, McKendrick A
NAME: Asik Pradhan  
PROJECT: Lens shape and accommodation: normal and myopic children under low concentration atropine.  
SUPERVISORS: Carkeet A, Atchison D, Hughes R, Pieterse E

NAME: Barsha Lal  
PROJECT: Optical coherence tomography angiography assessment of retinal and choroidal vasculature: Diurnal and longitudinal changes and refractive error  
SUPERVISORS: Carkeet A, Alonso-Caneiro D, Read SA

NAME: Thomas Nugent  
PROJECT: Five-primary display to measure the visual functions of intrinsically photosensitive retinal ganglion cells  
SUPERVISORS: Zele AJ, Feigl B, Fookes C

NAME: Kate Pecar  
PROJECT: A pedagogical analysis of Aboriginal and Torres Strait Islander Health Curricula in Optometry Programs  

NAME: Jason Kugelman  
PROJECT: Deep generative models to enhance ophthalmic image analysis  
SUPERVISORS: Alonso-Caneiro D, Collins MJ

NAME: Zach Quince  
PROJECT: Optical coherence elastography for the measurement of corneal and scleral biomechanical properties  
SUPERVISORS: Alonso-Caneiro D, Collins MJ, Read SA

NAME: Archayeeta Rakshit  
PROJECT: Investigations of higher order processing deficits in amblyopia  
SUPERVISORS: Schmid K, Atchison D, Webber A, Majhi D

NAME: Samir Uprety  
PROJECT: Melanopsin photoreceptor interactions with rods and cones in human vision  
SUPERVISORS: Adhikari P, Feigl B, Zele AJ
NAME: Dinesh Venugopal  
PROJECT: Development of a low luminance vision-related performance-based measure  
SUPERVISORS: Bentley SA, Black AA, Wood JM

NAME: Ignacio Andres Viedma Escalona  
PROJECT: Automatic layer segmentation in retinal OCT imaging using deep learning methods  
SUPERVISORS: Alonso-Caneiro D, Collins MJ, Read SA

NAME: Garcia Marin Francisco Yoel  
PROJECT: Deep Learning methods applied to anterior eye optical coherence tomography images  
SUPERVISORS: Alonso-Caneiro D, Collins MJ, Read SA

NAME: Ilya Zahari  
PROJECT: Effect of chemotherapy on the ocular surface and its relationship to peripheral neuropathy  
SUPERVISORS: Edwards K, Schmid K, Andrade R
Supporters

Thank you to the following organisations for your ongoing support of optometry and vision science here at QUT.