

## RESEARCH UNITS, CENTRES AND INSTITUTES

# **Annual Report Template**

Please refer to the University of Auckland Policy on Research Units, Centres and Institutes for more information on reporting and accountability requirements (clause 2.5). A copy of this policy is available from the University Policy Register.

### Section 1a - IDENTIFICATION INFORMATION:

Title of Unit, Centre or Institute:	New Zealand National Eye Centre - NZ-NEC
Name of Director:	Professor Charles McGhee
Name of Deputy Director:	Professor Paul Donaldson

### **Section 1b – ENDORSEMENT OF REPORT:**

Signatures:	Please sign in appropriate space
	below
Professor Charles McGhee - Director	
(Required for all Units/Centres/Institutes)	
Professor Charles McGhee -	
Head of Department	
(Required only for Department/School Units)	
Dean	
(Required for Faculty/University	
Centres/Institutes)	

### Section 2 – ADVISORY BOARDS AND MEETING DATES:

Names of Oversight Advisory Board members (for Faculty and University Centres that have Oversight Boards)	
Names of Expert Advisory Board members (for Faculty and University Centres that have Expert Advisory Boards)	
Names of Management Committee Members (for University and Faculty Centres)	Professor Charles McGhee Professor Paul Donaldson Professor Steven Dakin Sue Raynel – Manager NZ-NEC Hutokshi Chinoy – Administrative Manager
Dates of advisory board and management committee meetings that took place during the year	Committee members have had several meetings during the year specifically in relation to collaborative research, HRC funding applications, and teaching / glaucoma credentialing. In addition there have been informal networking at monthly NZ-NEC seminars (N= 8)

## Section 3 – PARTICIPATING MEMBERS AND EMPLOYEES/STUDENTS:

Names and	Department of Ophthalmology,
Departments of	Faculty of Medical and Health Sciences;
participating members	School of Optometry and Vision Science;
	Molecular Vision Laboratory.
	Affiliated members:
	New Zealand National Eye Bank;
	Glaucoma New Zealand;
	RANZCO Clinical and Experimental Ophthalmology;
	Department of Anatomy with Radiology;
	University of Auckland Bio-engineering Institute
List names, positions, and FTEs of all staff employed and postgraduate students involved in the Unit or Centre	No staff are employed directly by NZ-NEC but provide assistance at discretion of the Departmental HoD's.  See appendix for list of staff within NZ-NEC

### Section 4 - INTRODUCTION:

Provide here a brief introduction to the report (maximum of 300 words)

The recommendations from the 2016 review of NZ-NEC are utilised to guide on-going development within the centre

Members of NZ-NEC have published 124 peer reviewed papers and 1 book chapter (N=126) in 2019

In 2019 the members of the NZ-NEC, either individually or collaboratively, were successful in attaining **research funding in excess NZ\$6,800,000**.

\$1,760,087 HRC grants

\$1,632,000 Marsden/Royal Society grants,

\$1,067014 Industry funding mainly via UniServices,

\$1,493,755 from ADHB (mainly in fellowship grants. Funds are for 2019-2022).

A collaborative HRC programme grant has been resubmitted in 2019 following positive feedback and getting to interview stage in 2018.

10 PhD's, 4 MD's and 2 BMedSci(Hons) completions

PBRF success with 7 researchers receiving a top-ranking 'A' grade

### Section 5 – AIMS, GOALS AND FUTURE PLANS:

### a. General Aims:

Briefly describe the general aims (plans and objectives/goals) of the unit or centre. Identify how they address the University and Faculty Strategic Plan. **Vision**: to eliminate preventable blindness and reduce visual impairment

**Mission**: to become a foremost international vision research, clinical and teaching centre through excellence, innovation and collaboration

**Goals**: To develop and increase the profile of eye health, vision research and education – in New Zealand/Aoteoroa and internationally by:

- Applied and basic laboratory research
- Clinical research and clinical services
- · Application of research into practice
- Innovation
- Collaboration
- Teaching and Learning
- Community Outreach

[. <u> </u>	
b. Goals for Reporting Year:	Continue with expanding community programmes
Describe the specific goals for the reporting year.	Increase our research collaborations within UoA,     nationally and internationally, including
c. Plans for Upcoming Year:	Continuing to build research capacity eye health equity.
Outline the plans for the next year. Identify any resource	Expand specialist skill base within NZ-NEC with four key appointments of:
implications.	Senior Lecturer in Ophthalmology with interests in inflammatory eye and epidemiology
	Senior Lecturer in Ophthalmology with interests in imaging research & undergraduate teaching.
	<ul> <li>Associate Professor in SOVS with research interest in epidemiology and vision loss</li> </ul>
	<ol><li>Determining the barriers to accessing eye health care that are faced by people in New Zealand.</li></ol>
	Māori research fellow in Ophthalmology assessing barriers to interests in eye care and eye health amongst Māori and Pasifika
	4. Development of with Zhongshan Eye Centre, the largest eye institute in China

# Section 6 –MAJOR ACHIEVEMENTS AND OTHER NOTABLE ACTIVITIES:

Report against the specific goals listed in	Continue with expanding community programmes:
5b above	<ul> <li>Expanded school screening</li> <li>Collaborative glaucoma clinics with ADHB, SOVS and community optometrists</li> <li>Development of an MoU with the Fred Hollows Foundation New Zealand</li> <li>Securing philanthropic funding to allow SOVS to appoint Dr Jacqui Ramke as Associate Professor</li> <li>Addition of collaborative Uveitis, Keratoconus and Corneal Collagen Cross Linking clinics between Dept of Ophthalmology and ADHB.</li> </ul>

- 2. Increase our research collaborations within UoA, nationally and internationally
- · Medical University of Wenzhou, China
- Dr Jie Zhang and Prof CNJ McGhee development of research/teaching collaborations with, and invitation to, Zhongshan Eye Centre, the largest eye institute in China
- Further collaborations with Johns Hopkins Dr Stuti Misra and Prof Charles McGhee
- Dr Niederer represented New Zealand in the Australia/NZ Expert Panel on Management of JIAassociated Uveitis to develop a consensus statement on management of JIA-associated Uveitis (the most common cause of uveitis in children).
- Professor Colin Green Science Advisor Greenlane Research and Education Fund.

Summary of major developments and achievements. Identify how these activities contribute to the research capability of the department or faculty (beyond what would be achieved through the activities of the individual members). Please provide greater detail for anything noteworthy that may give useful publicity to the University

Community activities are continuing to expand with the school screening programme now testing approx. 4,500 Auckland school children each year, and a number of new initiatives planned for 2020.

Professor Charles McGhee, Director of NZ-NEC was the recipient of several prestigious awards:

- FRSNZ Fellow of the Royal Society Te Aparangi, New Zealand
- 2. ONZM Officer of New Zealand Order of Merit for contributions to ophthalmology
- International Gold Medal Award of Chinese Ophthalmological Society - In recognition of outstanding contributions to world eye care, education & support of Chinese ophthalmology
- Immediate Past-President, Asia Pacific Academy of Ophthalmology (APAO) representing 83,000 ophthalmologists (40% of world) and 25 national/regional ophthalmology societies
- Re-elected President: AAPPO Association of Asia Pacific Professors of Ophthalmology (N= >70 Professors in the region)

Dr Rachael Niederer: recipient of School of Medicine Distinguished Clinical Teacher Award 2019

SOVS secured financial support from the *Buchanan Charitable Foundation* to appoint Dr Jaqueline Ramke as an Associate Professor in Public Eye Health. Jacqui is an optometrist in eye health epidemiology (particularly in low-income countries).

She is currently funded by a Rutherford Commonwealth fellowship, at the London School of Hygiene & Tropical

Medicine and will join SOVS towards the middle of 2020. Jacqui will lead research initiatives in SOVS relating to eye health inequity (both internationally and within Aotearoa NZ) and will develop new teaching for the BOptom programme on community eye health matters.

SOVS has also established a new *Buchanan Charitable Foundation Honours Project Prize*, which will be awarded in 2020 to the best honours research project in the area of community eye health in recognition of Buchanan *Charitable Foundation* donation.

In Nov 2019 the FDA (Federal Drug Administration) in the US approved the MiSight contact lens as the first treatment approved by them for slowing myopia progression in children. The contact lens was designed and trialled within SOVS (designed by John Phillips, trialled by Nicola Anstice as her PhD). It was commercialised through UniServices.

Professor Paul Donaldson-Elected ICER Vice President Asia Pacific

Dr Julie Lim-Elected to Association for Research in Vison an Ophthalmology Lens Programme Committee

Dr Angus Grey - Conference Convenor for the 27<sup>th</sup> Australian and New Zealand Society for Mass Spectrometry, Auckland, NZ, Jan 30 – Feb 3 2019.

7 senior academics within NZ-NEC ranked 'A' in the latest PBRF round (4 ophthalmology, 2 SOVS, 1 MVL)

Appointment of Simone Freunelich (NgāPuhui and Tainui) as a research fellow to develop research on aspects of Maori/Pasifika eye health and barriers to attracting Maori/Pasifika into Ophthalmology and Vision Science careers.

10 PhD (2 MVL, 5 Ophthalmology, 3 optometry)

4 MD and 2 BMedSc completions

Several staff within NZ-NEC promoted in 2019

Senior lecturer above the bar: Ehsan Vaghefi, Julie Lim, Stuti Misra Senior Research Fellow Jie Zhang

### Student successes:

- Yadi Chen: finalist UoA 3 minute thesis competition
- Alyssa Lie: Received HOPE Selwyn Foundation Scholarship in Ageing Research. Also two travel awards National Foundation for Eye Research Young

Investigator Travel Award and the Sir John Logan Campbell Medical Trust Award

Several high profile international guest lecturers have presented at NZ-NEC seminars in 2018:

- Professor Michael Kalloniatis, Director Centre for Eye Health, University of New South Wales, Sydney, Australia
- Dr Natoli, Lectures in Genetics and Cell Biology, ANU Medical School, Canberra, Australia
- Dr Art Epstein, Director of Clinical Research, Phoenix Eye Centre, Arizona, USA

Members of NZ-NEc were invited to speak at several international meetings in 2019 including medal and keynote lectures:

#### Professor Colin Green

- RANZCO NZ
- Invited Speaker Inflammasome Therapeutics Summit. Boston USA
- Invited Speaker Australia and New Zealand Cornea Engineering Group

### ARVO 2019, Vancouver Canada

 Professor Colin Green, Dr Julie Lim, Professor Paul Donaldson, A/P IIva Rupenthal

Members of the Molecular Vision Laboratory organised the International Conference on the Lens, held in Kona, Hawaii, USA

### Professor Charles McGhee

- Plenary Lecture,1st International Conference in Clinical Research in Ophthalmology (ICCRO), Guangzhou, China
- Plenary Lecture 24<sup>th</sup> Congress of the Chinese Ophthalmological Society (CCOS), Suzhou
- Keynote, The Professor Janet Marsden Memorial Symposium
- European Society of Ophthalmology (SOE), Nice, France
- Plenary Session: APAO Bangkok, Thailand
- Scientific chair for: RANZCO NZ annual conference, ANZ Cornea Society

Comment on any cooperative commercial activities, research with other University or Government Patented technology was licenced to OcuNexus in October 2019 by Buchannan Oculo-Therapeutics team (BOTU)

Contract research project with Dalmoral Pharmaceutical, Australia completed by BOTU

# laboratories or research groups

### A/P Jennifer Craig

- Laboratoires Thea and TFOS Key Opinion Leader Continuing Education, Barcelona, Spain
- Manuka Health, NZ
- E-Swin, France
- Aston University, Birmingham, UK
- Universities of Montreal and Waterloo, Canada
- University of Melbourne, Australia

### Professor Colin Green

- Scientific support and trial design for two UniServices Return on Science projects – Pachymatrix and MSD diabetic Rat Strain.
- Science Advisor Greenlane Research and Education Fund.
- Chief Scientist, OcuNexus Therapeutics Inc. (gave 35 presentations, attended JP Morgan Healthcare Meetings Jan 2019 San Francisco USA, attended meetings in Amsterdam and Boston, scientific and regulatory support for Nexagon® trials)

### Professor Paul Donaldson and Dr Julie Lim

 Testing anti-cataract compound for Naucity Pharmaceuticals Inc.

# Comment on any courses given or workshops and seminars held

Internationally A/P Jennifer Craig delivered the following courses/workshops/seminars:

BCLA Conference, Manchester

- Incorporating TFOS DEWS II dry eye diagnosis into clinical practice
- Demodex diagnosis

Wenshou Medical University, Wenshou, University of New South Wales, Sydney, Australia SkiCPD Invited Continuing Education seminars, Chamonix, France

Dry Eye and Contact Lens Wear Online Module, on behalf of the British Contact Lens Association, London, UK Shire Key Opinion Leader Continuing Education seminar, Montreal, Canada

Dr Jie Zhang and Professor Charles McGhee Guangzhou initiative and key lab. Invited visit/lectures to develop research and teaching collaboration with China's largest eye institute – with aim of developing and MOU.

Akiesh Gokul, Samantha Simkin, Sue Raynel Ophthalmic Technology Course, Dept of Ophthalmology, FMHS, UoA

# **Section 7 - Reviews**

Date of last review	August 2016	
Date of last review	August 2010	
Review Recommendations  List the recommendations of the review and give an update of progress on addressing the recommendations.	<ol> <li>Submission of an HRC programme grant HRC programme grant by all members of NZ-NEC got to final interview stage in both the 2018 and 2019 funding round and the programme has been restructured and resubmitted in the 2020 round.</li> <li>Role of Professor Steven Dakin needs to be strengthened and clarified</li> <li>Professor Dakin maintains a key role in NZ-NEC and has collaborated widely on teaching and research developments that perhaps were not emphasised sufficiently in the previous report.</li> <li>A number of current key roles and collaborations include:         <ul> <li>Extensive discussion re: undergraduate and postgraduate optometry teaching, specifically glaucoma credentialing for UoA and community optometrists.</li> <li>Leading development of SOVS clinics in collaboration with Dept. of Ophthalmology e.g. 2019's Dry Eye service at Grafton</li> <li>Development of new HRC programme grant application relating to eye health inequity in 2021</li> <li>Leading cross-disciplinary action on addressing under-representation of Maori in optometry.</li> <li>Leading proposal to shift NZ-NEC focus to emphasize need to tackle eye health inequity</li> <li>Representative of NZ-NEC/University of Auckland within lobbying organisations such as Eye Health Aotearoa</li> <li>Involvement in regional planning of ophthalmology services in Metropolitan Auckland in conjunction with the Dept. of Ophthalmology and ADHB.</li> </ul> </li> </ol>	
	3. Increase participation of School of Optometry and Vision Science (SOVS) and Molecular Vision Laboratory within the Centre, to develop more collaborative research opportunities for the future	

HRC programme grant by all members of NZ-NEC got to final interview stage in 2019 funding round and resubmitted for 2020. Successful HRC project grant Prof Steven Dakin (SOVS) & Prof Helen Danesh-Meyer (Dept of Ophthalmology). Many collaborative grants received by members in NZ-NEC e.g. Dr Gus Grey, Prof Paul Donaldson, Zimei Wu and A/P IIva Rupenthal (AMRF); Dr Jiwon Hong, Dr Anthony Phillips, Prof John Windsor, Prof Colin Green and A/P IIva Rupenthal (National Pancreas Foundation)

### Section 8 - FINANCIAL REPORT

Chaha walaatka aa taa 1151	NZ NEC does not have its own and anima
State whether the Unit	NZ-NEC does not have its own cost centre
or Centre has its own	
Activity Centre/s and	
list the Activity Centre/s	
being used	
Chalana	21/4
State sources of	N/A
funding, for example,	
from research funds	
from outside bodies,	
from the Department or	
Faculty, or other	
List any significant	N/A
resource allocation	
decisions taken by the	
Oversight Board during	
this reporting year (if	
applicable)	
арричанну	
Include a statement of	N/a
financial performance	
(contact Faculty	
Accountant for	
assistance), or give a	
clear explanation of the	
reasons if there has	
been no financial	
activity	

### Section 9 - RESEARCH OUTPUTS

Include a
list of
publications
and other
research
outputs

**Book Chapters:** 

Sherwin T, Greene C, Green C and Kapadia K. One cell, two phenotypes: capturing pluripotency for corneal repair. In: Corneal Regeneration – Therapy and Surgery. Ed: Jorge Alió. Springer 2019.

### Peer review publications:

- Muntz A, Subbaraman L, Craig JP, Jones L.
   Cytomorphological assessment of the lid margin in relation
   to symptoms, contact lens wear and lid wiper
   epitheliopathy. Ocul Surf. 2019 doi:
   10.1016/j.jtos.2019.12.001. [Epub ahead of print] PMID:
   31821876
- Craig JP, Cruzat A, Cheung IMY, Watters GA, Wang MTM. Randomized masked trial of the clinical efficacy of MGO Manuka Honey microemulsion eye cream for the treatment of blepharitis. *Ocul Surf.* 2019 doi: 10.1016/j.jtos.2019.11.009. [Epub ahead of print] PMID: 31759183
- 3. Muntz A, Purslow C, Wolffsohn JS, Craig JP Improved Demodex diagnosis in the clinical setting using a novel in situ technique. *Cont Lens Anterior Eye.* 2019 doi: 10.1016/j.clae.2019.11.009. [Epub ahead of print] PMID: 31806355
- 4. Wang MTM, Ormonde SE, Muntz A, Craig JP Diagnostic profile of tear osmolarity and inter-ocular variability for dry eye disease. *Clin Exp Ophthalmol.* 2019 Nov 20. doi: 10.1111/ceo.13688. [Epub ahead of print] PMID: 31747111
- Wang MTM, Dean SJ, Muntz A, Craig JP. Evaluating the diagnostic utility of evaporative dry eye disease markers.
   Clin Exp Ophthalmol. 2019 Oct 31. doi: 10.1111/ceo.13671.
   [Epub ahead of print] PMID: 31671248
- Wang MTM, Diprose WK, Craig JP. Epidemiologic research in dry eye disease and the utility of mobile health technology. JAMA Ophthalmol 2019. doi:10.1001/jamaophthalmol.2019.4833 [Epub ahead of print] PMID: 31774466
- 7. Wang MTM, Liu L, McPherson RA, Fuller JR, Craig JP. Therapeutic profile of a latent heat eyelid warming device with temperature setting variation. *Cont Lens Anterior Eye.* 2019 Sep 30. doi: 10.1016/j.clae.2019.09.004. [Epub ahead of print] PMID: 31578176
- 8. Wang MTM, Thomson WM, Craig JP. Association between symptoms of xerostomia and dry eye in older people. *Cont Lens Anterior Eye.* 2019 doi: 10.1016/j.clae.2019.09.002. [Epub ahead of print] PMID:31542280

- 9. Craig JP. Robert J Jacobs: a leader in New Zealand optometric education. *Clin Exp Optom.* 2019 Aug 28. doi: 10.1111/cxo.12963. [Epub ahead of print] PMID: 31463951
- 10. Zhang AC, de Silva MEH, McIsaac RJ, Roberts, L, Kamel J, Craig JP, Busjia L, Downie, LE. Omega-3 polyunsaturated fatty acid (PUFA) oral supplements for improving peripheral nerve health: a systematic review and meta-analysis. *Nutr Rev.* 2019 Sep 17. pii: nuz054. doi: 10.1093/nutrit/nuz054. [Epub ahead of print] PMID: 31532492
- 11. Turnbull PRK, Wong J, Feng J, Wang MTM, Craig JP. Effect of virtual reality headset wear on the tear film: A randomised crossover study. *Cont Lens Anterior Eye.* 2019 Dec; 42(6):640-645. PMID: 31474438
- 12. Wang MTM, Feng J, Wong J, Turnbull PR, Craig JP. Randomised trial of the clinical utility of an eyelid massage device for the management of meibomian gland dysfunction. *Cont Lens Anterior Eye.* 2019 Dec; 42(6):620-624. PMD: 31358441
- 13. Agarwal P, Craig JP, Krösser S, Eickhoff K, Swift S, Rupenthal ID. Topical semifluorinated alkane based azithromycin suspension for the management of ocular infections. *Eur J Pharm Biopharm.* 2019 Sep; 142: 83-91. PMID: 31195132
- 14. Wang MTM, Craig JP. Natural history of dry eye disease: perspectives from interethnic comparison studies. *Ocul Surf.* 2019 Jul; 17(3):424-433. PMID: 30965124
- 15. Agarwal P, Khun D, Krösser S, Eickhoff K, Wells FS, Willmott GR, Craig JP, Rupenthal ID. Preclinical studies evaluating the effect of semifluorinated alkanes on ocular surface and tear fluid dynamics. *Ocul Surf.* 2019 Apr; 17(2): 241-249. PMID: 30831252
- 16. Wang MTM, Craig JP. Registered and published outcomes of randomized trials in ophthalmology. *JAMA Ophthalmol.* 2019 May 1;137(5):557-558. PMID: 30946428
- 17. Craig JP, Wang MTM. TFOS DEWS II and beyond utilising evidence base to inform the management of dry eye disease. *Optometry in Practice*. 2019 Mar; 20(1):1-12.
- 18. Ganesalingam K, Ismail S, Sherwin T, Craig JP. Molecular evidence for the role of inflammation in Dry Eye Disease. *Clin Exp Optom.* 2019 Sep; 102(5): 446-454. Review. PMID: 30630216
- Cohn GS, Corbett D, Tenen A, Coroneo M, McAlister J, Craig JP, Gray T, Kent D, Murray N, Petsoglou C, Baba SN, Holland EJ. Randomized, controlled, double-masked, multicenter, pilot study evaluating safety and efficacy of intranasal neurostimulation for dry eye disease. *Invest*

- Ophthalmol Vis Sci. 2019 Jan 2;60(1):147-153. PMID: 30629728
- 20. Craig JP, Lim J, Han A, Tien L, Xue AL, Wang MTM. Ethnic differences between the Asian and Caucasian ocular surface: a co-located adult population cohort study *Ocul Surf.* 2019 Jan; 17(1):83-88. PMID: 30253249
- 21. Kim JS, Wang MTM, Craig JP. Exploring the Asian ethnic predisposition to dry eye disease in a pediatric population. *Ocul Surf.* 2019 Jan; 17(1):70-77. PMID: 30219270
- 22. Wang MTM, Xue AL, Craig JP. Screening utility of a rapid non-invasive dry eye assessment algorithm. *Cont Lens Anterior Eye.* 2019 Oct; 42(5):497-501. PMID: 30473321
- 23. Wang MTM, Xue AL, Craig JP. Comparative Evaluation of 5 Validated Symptom Questionnaires as Screening Instruments for Dry Eye Disease. *JAMA Ophthalmol.* 2019 Feb 1;137(2):228-229. PMID: 30419082
- 24. Ganesalingam K, Ismail S, Craig JP, Sherwin T. Use of a purpose-built impression cytology device for gene expression quantification at the ocular surface using Quantitative PCR and Droplet Digital PCR. *Cornea.* 2019 Jan; 38(1):127-133. PMID: 30346340
- 25. Wang MTM, Dean SJ, Xue AL, Craig JP. Comparative performance of lid wiper epitheliopathy and corneal staining in detecting dry eye disease. *Clin Exp Ophthalmol*. 2019;47(4):546-548. PMID: 30345580
- 26. Ziaei M, Gokul A, **Patel DV**, McGhee CN. Peripheral Cornea Crosslinking Prior to Keratoplasty to Reduce the Risk of Recurrent Ectasia. *Medical Hypothesis, Discovery & Innovation in Ophthalmology journal* 2020 (In press)
- 27. Han JV, Patel DV, Liu K, Kim BZ, Sherwin T, McGhee CNJ.
  Auckland Cataract Study IV: Practical Application of NZCRS
  Cataract Risk Stratification to Reduce Phacoemulsification
  Complications. *Clinical and Experimental Ophthalmology*2019 (Epub ahead of print)
- Ziaei M, Gokul A, Vellara H, Patel DV, McGhee CN. Prospective Two Year Study of Accelerated Pulsed Transepithelial Corneal Cross-Linking outcomes for Keratoconus. Eye (In press)
- 29. Ziaei M, Vellara HR, Gokul A, Ali NQ, McGhee CN, Patel DV. Comparison of corneal biomechanical properties following penetrating keratoplasty and deep anterior lamellar keratoplasty for keratoconus. Clinical and Experimental Ophthalmology 2019 [Epub ahead of print]
- 30. Han JV, **Patel DV**, Squirrell D, McGhee CNJ.Topical NSAIDs are not the mainstay of prophylaxis and treatment for pseudophakic cystoid macular oedema: Response. *Clinical*

- and Experimental Ophthalmology 2019 [Epub ahead of print]
- 31. McGhee CN, Zhang J, **Patel DV**. A perspective of contemporary cataract surgery: the most common surgical procedure in the world. *Journal of the Royal Society of New Zealand* 2019 (In press)
- 32. Zhang J, **Patel DV**, McGhee CNJ. The Rapid Transformation of Transplantation for Corneal Endothelial Diseases: An Evolution from Penetrating to Lamellar to Cellular Transplants. *Asia-Pacific Journal of Ophthalmology* 2019;8(6):441-447
- 33. Lu LM, Boyle AB, Niederer RL, Brookes NH, McGhee CN, **Patel DV**. Repeat corneal transplantation in Auckland, New Zealand: indications, visual outcomes and risk factors for repeat keratoplasty failure. *Clinical and Experimental Ophthalmology* 2019; 47(8):987-994.
- 34. Ziaei M, Gokul A, Vellara HV, **Patel DV**, McGhee CN. Prospective Two Year Study of Clinical Outcomes Following Epithelium-off Pulsed versus Continuous Accelerated Corneal Crosslinking for Keratoconus. *Clinical and Experimental Ophthalmology* 2019; 47(8):980-986
- 35. Han JV, **Patel DV**, Squirrell D, McGhee CN. Cystoid macular oedema following cataract surgery: A review. *Clinical and Experimental Ophthalmology* 2019; 47(3): 346-356
- 36. Ng H, Mathan J, **Patel DV**. Acute Corneal Hydrops. *JAMA Ophthalmology* 2019 (In press)
- 37. Han JV, **Patel DV**, Wallace HB, Kim BZ, Sherwin T, McGhee CNJ. Auckland Cataract Study III: Refining Preoperative Assessment With Cataract Risk Stratification to Reduce Intraoperative Complications. Am J Ophthalmol. 2019; 200: 253-254.
- 38. Zhang J, McGhee CN, **Patel DV**. The Molecular Basis of Fuchs' Endothelial Corneal Dystrophy. *Molecular Diagnosis & Therapy* 2019; 23(1):97-112
- 39. **Patel DV**, Zhang J, McGhee CN. *In vivo* confocal microscopy of the inflamed anterior segment: a review of clinical and research applications. *Clinical and Experimental Ophthalmology* 2019; 47(3):334-345
- 40. Zhu M, Tay ML, Callon K, Tuari D, Zhao L, Dray M, Zhang J, Munro J, Young S, Coleman B, **Patel DV**, Cornish J, Musson D. Overlay Repair with a Novel Collagen Scaffold Improves the Quality of Healing in a Rat Rotator Cuff Repair Model. *Journal of Shoulder and Elbow Surgery* 2019 (In press)
- 41. Han JV, **Patel DV**, Wallace HB, Kim BZ, Sherwin T, McGhee CN. Auckland Cataract Study III: refining preoperative assessment with cataract risk stratification to reduce

- intraoperative complications. *American Journal of Ophthalmology* 2019;197:114-120.
- 42. Anderson, D.M., Nye-Wood, M.G., Rose, K.L., Donaldson, P.J., Grey, A.C., Schey, K.L., 2019. MALDI imaging mass spectrometry of b- and g-crystallins in the ocular lens. Journal of Mass Spectrometry (Epub ahead of print), 10.1002/jms.4473.
- 43. Boughton, B.A., Thomas, O.R.B., Demarais, N.J., Trede, D., Swearer, S.E., Grey, A.C., 2019. Detection of small molecule concentration gradients in ocular tissues and humours. Journal of Mass Spectrometry (Epub ahead of print), 10.1002/jms.4460.
- 44. Demarais, N.J., Donaldson, P.J., Grey, A.C., 2019. Agerelated spatial differences of human lens UV filters revealed by negative ion mode MALDI imaging mass spectrometry. Experimental Eye Research 184, 146-151, 10.1016/j.exer.2019.04.016.
- 45. Heikkinen, E.M., Auriola, S., Ranta, V.-P., Demarais, N.J., Grey, A.C., del Amo, E.M., Toropainen, E., Vellonen, K.-S., Urtti, A., Ruponen, M., 2019. Distribution of small molecular weight drugs into the porcine lens: studies on imaging mass spectrometry, partition coefficients, and implications in ocular pharmacokinetics. Molecular Pharmaceutics 16, 3968-3976, 10.1021/acs.molpharmaceut.9b00585.
- 46. Pan X, Lie AL, White TW, Donaldson PJ, Vaghefi E. Development of an in vivo magnetic resonance imaging and computer modelling platform to investigate the physiological optics of the crystalline lens. Biomed Opt Express. 2019; 10: 4462-4478.
- 47. Squirrell, D., Hill, S., Song, E., Xie, L., Alshaikhi, M., & Vaghefi, E. (2019). Primary grading of diabetic retinopathy from retinal images using a custom designed CNN: The Auckland experience. In CLINICAL AND EXPERIMENTAL OPHTHALMOLOGY Vol. 47 (pp. 152).
- 48. Hill, S., Vaghefi, E., Kersten, H., & Squirrell, D. (2019). Multi-input artificial intelligence design for multi-modal retinal imaging diagnosis of intermediate dry age related macular degeneration. In CLINICAL AND EXPERIMENTAL OPHTHALMOLOGY Vol. 47 (pp. 61-62).
- 49. Hill, S., Mullins, P., Schmiedel, O., Alshaikhi, M., Vaghefi, E., & Squirrell, D. (2019). Epidemiology of diabetic retinopathy and maculopathy in Auckland, New Zealand: a regional photo-screening program 2006-2018. In CLINICAL AND EXPERIMENTAL OPHTHALMOLOGY Vol. 47 (pp. 55).
- 50. Sadeghi, S., Al-Ani, H. H., Hill, S., Alsheikhi, M., Vaghefi, E., & Squirrell, D. (2019). Efficacy of intravitreal avastin for the treatment of centre involving diabetic maculopathy in a real-

- world setting (Auckland DME study II). In CLINICAL AND EXPERIMENTAL OPHTHALMOLOGY Vol. 47 (pp. 147).
- 51. Xie, L., Yang, S., Squirrell, D., & Vaghefi, E. (2019). Towards implementation of AI in New Zealand national screening program: Cloud-based, Robust, and Bespoke. doi:10.1101/823260
- 52. Kersten, H. M., Ryan, B., Brickell, K. L., Ilse, C., Vaghefi, E., Addis, D. R., Danesh-Meyer, H. (2019). The New Zealand Genetic Frontotemporal Dementia Study (FTDGeNZ):
  Baseline retinal characteristics. In Investigative Ophthalmology & Visual Science Vol. 60 (pp. 3 pages).
  Vancouver, Canada: Association for Research in Vision and Ophthalmology. Retrieved from https://iovs.arvojournals.org/article.aspx?articleid=2742463
- 53. Vaghefi, E., Song, Y., Hill, S., Humphrey, G., Walker, N., & Squirrell, D. (2019). Detection of smoking status from retinal images; a Convolutional Neural Network study. Scientific Reports, 9(1). doi:10.1038/s41598-019-43670-0
- 54. Khanal, S., Turnbull, P., Vaghefi, E., & Phillips, J. (2019). Blood perfusion MRI response of the human choroid to myopic retinal image defocus. Poster session presented at the meeting of Association for Research in Vision and Ophthalmology 2019. Vancouver, Canada. Retrieved from <a href="https://www.arvo.org/annual-meeting/meeting-info/past-annual-meetings/">https://www.arvo.org/annual-meeting/meeting-info/past-annual-meetings/</a>
- 55. Shalbaf, F., Lovell, N. H., Dokos, S., Trew, M., & Vaghefi, E. (2019). Foveal eccentricity can influence activation threshold in subretinal electrical stimulation. Biomedical Physics and Engineering Express, 5(3), 12 pages. doi:10.1088/2057-1976/ab0b85
- Vaghefi Rezaei, S. E., Pontre, B., Donaldson, P. J., & Jacobs, M. D. (n.d.). Diffusion tensor imaging in the bovine ocular lens. Physiological measurements.
- 57. Martis RM, Donaldson PJ, Li B, Middleditch M, Kallingappa PK, Lim JC.Mapping of the cystine-glutamate exchanger in the mouse eye: a role for xCT in controlling extracellular redox balance. Histochem Cell Biol. 2019 Oct; 152(4): 293-310. doi: 10.1007/s00418-019-01805-4. Epub 2019 Aug 8.
- 58. Martis RM, Donaldson PJ, Lim JC.Corneal opacities in mice exposed to repeated contact procedures during ocular examinations. Clin Exp Optom. 2019 Jun 20. doi: 10.1111/cxo.12934.
- 59. Braakhuis AJ, Donaldson CI, Lim JC, Donaldson PJ. Nutritional Strategies to Prevent Lens Cataract: Current Status and Future Strategies. Nutrients. 2019 May 27;11(5). pii: E1186. doi: 10.3390/nu11051186. Review.

- 60. Chen Y, Gao J, Li I, Sellitto C, Mathias RT, Donaldson PJ; White TW. The Ciliary Muscle and Zonules of Zinn Modulate Lens Intracellular Hydrostatic Pressure Through Transient Receptor Potential Vanilloid Channels". Investigative Ophthalmology & Visual Science October 2019, Vol.60, 4416-4424. doi:https://doi.org/10.1167/jovs.19-27794
- 61. Nakazawa, Y., Donaldson, P. J., & Petrova, R. S. (2019). Verification and spatial mapping of TRPV1 and TRPV4 expression in the embryonic and adult mouse lens. *Experimental eye research*, 18610.1016/j.exer.2019.107707
- 62. Niederer RL, Sims JL. Utility of screening investigations for systemic sarcoidosis in undifferentiated uveitis. Am J Ophthal 2019; 206:149-153.
- 63. Niederer RL, Al-Janabi A, Lightman S, Tomkins-Netzer O. Serum angiotensin-converting enzyme has a high negative predictive value in investigation for systemic sarcoidosis. Am J Ophthal 2019; 201:89.
- Re: Hughes et al: Cost-effectiveness analysis of adalimumab for the treatment of uveitis associated with juvenile idiopathic arthritis. Ophthal 2019; 126(3): e22-e24.
- 65. Betts TD, Sims JL, Bennett SL, Niederer RL. Outcome of peripheral iridotomy in subjects with uveitis. Br J Ophthal 2019;104(1):8-10.
- 66. Lu LM, McGhee CNJ, Sims JL, Niederer RL. High rate of recurrence of herpes zoster-related ocular disease after phacoemulsification cataract surgery. J Cat Refract Surg 2019; 45(6):810-815.
- 67. Ali NQ, Niederer RL. Severe retinal vasculitis as a manifestation of poststreptococcal syndrome in a child. Clin Exp Ophthal 2019; [Epub ahead of press]
- 68. Lu LM, Boyle AB, Niederer RL, Brookes NH, McGhee CN, Patel DV. Repeat corneal transplantation in Auckland, New Zealand: indications, visual outcomes and risk factors for repeat keratoplasty failure. Clin Exp Ophthal 2019; [Epub ahead of press]
- 69. Ogra S, McGhee CNJ, Sims JL, Niederer RL. Ocular complications and mortality in peripheral ulcerative keratitis and necrotising scleritis: the role of systemic immunosuppression. Clin Exp Ophthalmol 2019; [Epub ahead of press]
- 70. Bhikoo R, Wang N, Welch S, Polkinghorne P, Niederer RL. Factors associated with positive microbial culture in patients with endophthalmitis based on clinical presentation and multi-modal intraocular sampling. Asia-Pacific J Ophthal 2019; [In press]

- 71. Kho A, Niederer RL, Wilson G. Exploring the impact of public health campaigns for glaucoma and macular degeneration utilising Google Trends data in a New Zealand setting. NZMJ 2019 [Accepted pending revisions]
- 72. Gilbert R, Niederer RL, Lightman SL, Tomkins-Netzer O. Differentiating MFC and PIC: a cluster analysis approach. Am J Ophthal 2019 [Accepted pending revisions]
- 73. Al-Ani H, Niederer RL. Re:Latif et al. Pattern of intermediate uveitis in an Egyptian cohort. Ocular Immunol and Inflamm 2019 [Submitted]
- 74. Mugisho OO, Rupenthal ID, Paquet-Durand F, Acosta ML, Green CR. Targeting connexin hemichannels to control the inflammasome: the correlation between connexin43 and NLRP3 expression in chronic eye disease. Expert Opinion on Therapeutic Targets, DOI: 0.1080/14728222.2019.1673368
- 75. Mat Nor MN, Rupenthal ID, Green CR, Acosta ML. Connexin hemichannel block using orally delivered tonabersat improves outcomes in animal models of retinal disease. Neurotherapeutics. 2019 Oct 21. doi: 10.1007/s13311-019-00786-5. [Epub ahead of print]
- 76. Wallace HB, McKelvie J, Green CR, Misra SL. Corneal Curvature: The Influence of Corneal Accommodation and Biomechanics on Corneal Shape. Transl Vis Sci Technol. 2019 Jul 8;8(4):5. doi: 10.1167/tvst.8.4.5. eCollection
- 77. Kuo C, Green CR, Rupenthal ID, Mugisho OO. Connexin43 hemichannel block protects against retinal pigment epithelial cell barrier breakdown. Acta Diabetol. 2019 Apr 27. doi: 10.1007/s00592-019-01352-3. [Epub ahead of print]
- 78. Zhou KQ, Green CR, Bennet L, Gunn AJ, Davidson JO. The role of connexin and pannexin channels in perinatal brain injury and inflammation. Frontiers in Physiology. 2019: 27;10:141.
- 79. Mugisho OO, Green CR, Zhang J, Acosta ML, Rupenthal ID. Connexin43 hemichannels: a potential drug target for the treatment of diabetic retinopathy. Drug Discov Today. 2019 Jan 25. pii: S1359-6446(18)30393-3. doi: 10.1016/j.drudis.2019.01.011. [Epub ahead of print] Review.
- 80. Coutinho FP, Green CR, Rupenthal ID. Targeting drugs to diseased ocular cells, ONdrugDelivery, 2019; 94: 10-12.
- 81. Mugisho OO, Green CR, Squirrell DM, Bould S, Danesh-Meyer HV, Zhang J, Acosta ML, Rupenthal ID. Connexin43 hemichannel block protects against the development of diabetic retinopathy signs in a mouse model of the disease. Journal of Molecular Medicine (Berl). 2019; 97:215-229.
- 82. MAT NOR MN, **RUPENTHAL ID**, GREEN CR, ACOSTA ML (in press) Connexin hemichannel block using orally delivered

- tonabersat improves outcomes in animal models of retinal disease, Neurotherapeutics, 10.1007/s13311-019-00786-5 **IF 5.552**
- 83. MUGISHO OO, RUPENTHAL ID, PAQUET-DURAND F, ACOSTA ML, GREEN CR (2019) Targeting connexin hemichannels to control the inflammasome: The correlation between connexin43 and NLRP3 expression in chronic eye disease, Expert Opinion On Therapeutic Targets 23:855-863 IF 4.621
- 84. **RUPENTHAL ID**, DAUGHERTY A (2019) Ocular drugs and drug delivery systems Current trends and future perspectives, Drug Discovery Today 24:1425-1426 **IF 6.880**
- 85. AGBAN Y, THAKUR SS, MUGISHO OO, **RUPENTHAL ID** (2019) Depot formulations to sustain periocular drug delivery to the posterior eye segment, Drug Discovery Today 24:1458-1469 IF 6.880
- 86. MUGISHO OO, GREEN CR, ZHANG J, ACOSTA ML, RUPENTHAL ID (2019) Connexin43 hemichannels: a potential drug target for the treatment of diabetic retinopathy, Drug Discovery Today 24: 1627-1636 IF 6.880
- 87. HUANG D, CHEN YS, **RUPENTHAL ID** (2019) Corrigendum to "Overcoming ocular drug delivery barriers through the use of physical forces" [Advanced Drug Delivery Reviews 126 (2018) 96–112], Advanced Drug Delivery Reviews 139: 157 **IF 15.519**
- 88. KUO C, GREEN CR, **RUPENTHAL ID**, MUGISHO OO, Connexin43 hemichannel block protects against retinal pigment epithelial cell barrier breakdown, Acta Diabetologica, doi.org/10.1007/s00592-019-01352-3 **IF 2.996**
- 89. LEE S, KHUN D, KUMARASINGHE GL, DE ZOYSA GH, SAROJINI V, VELLARA HR, **RUPENTHAL ID**, THAKUR SS (2019) Ex vivo evaluation of the safety, antibacterial efficacy and stability of an extemporaneous povidone-iodine preparation for ophthalmic applications, Clinical and Experimental Optometry, 102: 583-589 **IF 1.559**
- 90. AGARWAL P, KRÖSSER S, EICKHOFF K, SWIFT S, CRAIG JP, RUPENTHAL ID (2019) Topical semifluorinated alkane-based azithromycin suspension for the management of ocular infections, European Journal of Pharmaceutics and Biopharmaceutics 142: 83-91 IF 4.708
- 91. AGARWAL P, KHUN D, KRÖSSER S, EICKHOFF K, WELLS FS, WILLMOTT GR, CRAIG JP, **RUPENTHAL ID** (2019) Preclinical studies evaluating the effect of semifluorinated alkanes on ocular surface and tear fluid dynamics, Ocular Surface 17(2): 241-249 IF 9.108
- 92. MAHBOOBIAN MM, SEYFODDIN A, ABOOFAZELI R, FOROUTAN SM, **RUPENTHAL ID** (2019) Brinzolamide—

- loaded nanoemulsions: Ex vivo transcorneal permeation, cell viability and ocular irritation tests. Pharmaceutical Development and Technology 24(5): 600-606 **IF 2.347**
- 93. THAKUR SS, SHRESTHA D, **RUPENTHAL ID** (2019) Evaluation of two ex vivo bovine cornea storage protocols for drug delivery applications, Ophthalmic Research 61(4): 204-209 **IF 1.685**
- 94. MUGISHO OO, GREEN CR, SQUIRRELL DM, BOULD S, ZHANG J, ACOSTA ML, **RUPENTHAL ID** (2019) Connexin43 hemichannel block protects against the development of diabetic retinopathy in a mouse model of the disease, Journal of Molecular Medicine 97(2): 215-229 **IF 4.746**
- 95. THAKUR SS, CHEN YS, HOUSTON ZH, FLETCHER N, BARNETT NL, THURECHT KJ, **RUPENTHAL ID**, PAREKH HS (2019) Ultrasound-responsive nanobubbles for enhanced intravitreal drug migration: an ex vivo evaluation, European Journal of Pharmaceutics and Biopharmaceutics 136: 102-107 **IF 4.701**
- 96. Khanal S, Turnbull PR, Lee N, Phillips JR. (2019). The effect of atropine on human global flash mfERG responses to retinal defocus. *Investigative ophthalmology & visual science*, 60(1), 218-225.
- 97. Hamm LM, Mistry K, Black JM, Grant CC, Dakin SC. (2019). Impact of Children's Postural Variation on Viewing Distance and Estimated Visual Acuity. *Translational vision science & technology*, 8(1), 16-16.
- 98. Hamm LM. Boluk KA. Black JM. Dai S, Thompson B. (2019). Phenomenological approach to childhood cataract treatment in New Zealand using semi-structured interviews: how might we improve provision of care. *BMJ open*, *9*(1), bmjopen-2018.
- 99. Vaghefi E, Yang S, Hill S, Humphrey G, Walker N, Squirrell D. (2019). Detection of smoking status from retinal images; a Convolutional Neural Network study. *Scientific reports*, 9(1), 1-9.
- 100. Shalbaf F, Lovell NH, Dokos S, Trew M, Vaghefi E. (2019). Foveal eccentricity can influence activation threshold in subretinal electrical stimulation. *Biomedical Physics & Engineering Express*, *5*(3), 035009.
- 101. De Haas B, Iakovidis AL, Schwarzkopf DS, Gegenfurtner KR. (2019). Individual differences in visual salience vary along semantic dimensions. *Proceedings of the National Academy of Sciences*, 116(24), 11687-11692.
- Hughes AE, Greenwood JA, Finlayson NJ, Schwarzkopf DS.
   (2019). Population receptive field estimates for motiondefined stimuli. *NeuroImage*, 199, 245-260.

- 103. Khanal S, Phillips JR. (2019). Which low-dose atropine for myopia control? *Clinical & experimental optometry*.
- 104. Hamm LM, Langridge F, Black JM, Anstice NS, Vuki M, Fakakovikaetau T, Dakin SC. (2019). Evaluation of vision screening of 5–15-year-old children in three Tongan schools: comparison of The Auckland Optotypes and Lea symbols. Clinical and Experimental Optometry.
- 105. Turnbull PR, Wong J, Feng J, Wang MT, Craig JP. (2019). Effect of virtual reality headset wear on the tear film: A randomised crossover study. *Contact Lens and Anterior Eye*, 42(6), 640-645
- 106. Buchan JC, Dean WH, Ramke J, Burton MJ. (2019). The inverse-research law of eye health. *Eye*, *33*(12), 1976-1977.
- 107. Burton MJ, Faal HB, Ramke J, Ravilla T, Holland P, Wang N, Foster A. (2019). Announcing The Lancet Global Health Commission on Global Eye Health. *The Lancet Global Health*, 7(12), e1612-e1613.
- 108. Ramke J, Kyari,F, Mwangi N, Piyasena MMPN, Murthy GVS, Gilbert CE (2019). Cataract Services are Leaving Widows Behind: Examples from National Cross-Sectional Surveys in Nigeria and Sri Lanka. *International Journal of Environmental Research and Public Health*, 16(20), 3854.
- 109. Chapman NA, Anstice NS, Jacobs RJ. (2019). Geographic distribution of eye-care practitioners in Aotearoa/New Zealand: implications for future eye health workforce. Clinical and Experimental Optometry.
- 110. Squirrell D, Hill S, Song E, Xie L, Alshaikhi M, Vaghefi E (2019, November). Primary grading of diabetic retinopathy from retinal images using a custom designed CNN: The Auckland
- 111. Ogra S, Sims JL, McGhee CNJ, Niederer RL. Ocular complications and mortality in peripheral ulcerative keratitis and necrotising scleritis: the role of systemic immunosuppression. Clin Exp Ophthalmol. 2019 Dec 24. (Epub ahead of print)
- 112. Swanevelder SK, Misra SL, Tyler EF, McGhee CNJ. Precision, agreement and utility of a contemporary non-contract corneal aesthesiometer. *Clin Exp Ophthalmol.* 2019 Dec 23. (Epub ahead of print)
- 113. Tyler EF, Misra SL, McGhee CNJ, Zhang J. Corneal nerve plexus changes induced by Oxaliplatin chemotherapy and Ergothioneine antioxidant supplementation. *Clin Exp Ophthalmol.* 2019 Nov 20. (Epub ahead of print)
- 114. Shi J, Han JV, McGhee CNJ, Zhang J. Vision threatening uveitis -glaucoma-hyphaema syndrome: an uncommon but

- continuing concern in the 21<sup>st</sup> century. *Clin Exp Ophthalmol.* 2019 Oct 20. (Epub ahead of print
- 115. Namkung S, Goh YW, Ziaei M, McGhee CNJ. Assessing and managing an anomalous vascular lesion of the iris. *Clin Exp Ophthalmol.* 2019 Dec; 47(9): 1220-1222.
- 116. Hadden PW, Gerneke DA, McGhee CNJ, Zhang J. Micro-computed tomography orbital anatomy of the little blue or fairy penguin, Eudyptula minor. Clin Exp Ophthalmol. 2019 Sep 5. (Epub ahead of print)
- 117. Namkung S, Han JV, McGhee CNJ. Harmonizing cataract surgery training and patient centred care in 2020: Disclosure, consent, supervision and patient altruism. *Clin Exp Ophthalmol.* 2019 Nov; 47(8):975-977.
- 118. Simkin SK, Misra SL, Han JV, McGhee CNJ, Dai S. Auckland regional telemedicine retinopathy of prematurity screening network: A 10 year review. *Clin Exp Ophthalmol.* 2019 Dec; 47(9): 1122-1130.
- 119. Meyer JJ, Vellara HR, Bhikoo R, Sefo LA, Lolokabaira S, Murray NL, McGhee CN. Improved refractive outcomes of small-incision extracapsular cataract surgery after implementation of a biometry training course. Middle East Afr J Ophthalmol. 2019 Jan-Mar; 26(1): 17-22.
- 120. Simkin SK, Misra SL, Battin M, McGhee CNJ, Dai S. Prospective observational study of universal newborn eye screening in a hospital and community setting in New Zealand. BMJ Paediatr Open. 2019 Jan 31; 3(1). Pii: bmjpo-2018-000376.
- 121. Lu LM, Mathan JJ, Gokul A, McGhee CN. A successful 50-year history of anterior lamellar keratoplasty performed for keratoconus in New Zealand. Clin Exp Optom. 2019. Sep; 102(4):521-522.
- 122. Chong C, McGhee CNJ, Dai SH. Causes of childhood low vision and blindness in New Zealand. Clin Exp Ophthalmol. 2019 Mar; 47(2):165-170.
- 123. Court JH, Lu LM, Wang N, McGhee CNJ. Visual and ocular morbidity in severe open-globe injuries presenting to a regional eye centre in New Zealand. Clin Exp Ophthalmol. 2019 May; 47(4):469-477.
- 124. Simkin SK, Misra SL, Kasture A, McGhee CN, Dai S. Clinical applicability of the Saccadic Vector Optokinetic Perimeter in children with and without visual impairment. Clin Exp Optom. 2019 Jan; 102(1):70-78.

Please forward your report to your Head of Department or Faculty Office for endorsement (Section 1B above). Note: Annual Reports to be submitted to Research Committee must reach the Research Office by 28 February.

### **Department of Ophthalmology**

Academic Staff

Professor Charles McGhee (HOD)

Professor Colin Green

Professor Helen Danesh-Meyer

Professor Trevor Sherwin

Professor Dipika Patel

Associate Professor Jennifer Craig

Associate Professor Andrea Vincent

Associate Professor Ilva Rupenthal

Dr Susan Ormonde (Senior Lecturer)

Dr Hussain Patel (Senior Lecturer)

Dr Rasha AlTaie (Senior Lecturer)

Dr Jay Meyer (Senior Lecturer)

Dr Stuti Misra (Senior Lecturer)

Dr Rachael Niederer (Senior Lecturer)

Dr Mohammed Ziaei (Senior Lecturer)

Dr James McKelvie (Senior Lecturer, Waikato Clinical

Campus)

Clinical Research Fellows

Dr Alexandra Crawford (Cornea)

Dr Tafadzwa Young (Surgical Retina)

Dr David Brunner (Surgical Retina)

Dr Sarah Hull (Paediatrics)

Dr Sophie Hill (Medical Retina)

Dr Alyaqdhan Al-Ghadri (Oculoplastics)

Dr Jessica Troppop (Uveitis)

Dr Rahul Dwivedi (Glaucoma)

Research Fellows

Dr James Slater HRC clinical fellowship

Dr Jina Han

Dr Corina Chilibeck

Dr Simone Fruendlich

Lecturer/Research Fellows

Dr Jie Zhang

Dr Carol Greene

Dr Alex Muntz

Dr Akilesh Gokul

Dr Samantha Simkin

Dr Sanjay Marasini

De Ally Xue

Dr Lola Rotimi

PhD Candidates

Joyce Mathan

Michael Wang

Yosra Abgan

Anannya Parvathi

Dr Peter hadden

**MD** Candidates

Dr Jina Han

Dr Mohammed Ziaei

Dr James Slater

Honours students

Soobin Namkung (BMedSci)

Jane Shi (BMedSci)

Research and Technical Staff

Jane McGhee – senior research technician

Judy Loh – research technician

Salim Ismail – research technician

Dr Lin Hou – research technician

Administration

Hutokshi Chinoy - PA to HoD and Administrative

Manager of NZ-NEC

Maree McInerney – Departmental secretary

Susanne Raynel – Research Programme Manager

and NZ-NEC Manager

Visiting Lecturers/ Honorary Academics

Clinical A/Professor Philip Polkinghorne

Clinical A/Professor Hadden,Osmond Bruce

Professor Grupcheva, Hristina Nikolova, Bulgaria

Dr Chou, Chi

Dr Ahmad, Nadeem

Dr Pendergrast, David

Dr Sharp, Dianne Margaret

Dr Gray, Trevor Buchanan

Dr Dai, Shuan H

Dr Ring, Charles Peter

Dr Ku, Yu-Fen Judy

Dr Barnes, Rachel Mary

Dr Bennett, Sonya Louise

Dr McAllum,Penelope Jane

Dr Sims, Joanne Lesley

Dr Riley, Andrew Francis Cameron

Dr Mora, Justin Stewart

Dr Welch,Sarah Helen

Dr Meyer,Derrell Graham

Dr Malik, Tahira Yasmin

Dr Hart,Richard Hamilton

Dr Dean,Simon John

Dr Donaldson,Mark Liston

Dr Best,Stephen James

Dr Hadden, Peter William

Dr Kane, Sam

Dr Murray, Neil

Dr Watts, Andrew

Dr Carroll, Stuart

Dr Squirrell, David

### School of Optometry and Vision Science

Academic staff

Professor Steven Dakin (HoD) Associate Professor Robert Jacobs Associate Professor Sam Schwarzkopf

Dr Geraint Phillips (Senior Lecturer/Clinic Director)

Dr Andrew Collins (Academic Director)

Senior Lecturer Dr John Phillips Dr Misha Vorobyev Dr Ehsan Vaghefi Dr Clairton de Souza

Lecturer

Dr Monica Acosta Dr Jason Turuwhenua

Dr Jo Black Dr Phil Turnbull (Clinic) 0.2 Dr Tina Gao

**Professional Teaching Fellows** 

Wanda Lam Bhavini Solanki Melinda Calderwood

Lisa Silva
Kathryn Sands
Kerry Atkinson
Michelle O'Hanlon
Jason Dhana
Marcy Tong
Jaymie Rogers
Robert Ng
John McLennan
Zaria Burden
Bhavna Patel
Ashley Gray
Kristine Hammond

Research Fellows and Postdoctoral Fellows

Dr Keith Pine Dr Lisa Hamm Dr Catherine Morgan Dr Lucy Goodman

**PhD Candidates** 

Tanya Poppe graduated 2019 Safal Khanal graduated 2019 Renita Martis graduated 2019 Soheil Mohammadpour Xing Zheng Pan (Wilson) Rebecca Findlay Jayshree South Alice Cade Alyssa Lie

Gaganashree Shivashankar

Tasi Watson Jasmine Zoest

Technicians (transferred to Technical Services late 2019)

Adina Giurgiu – Lab Manager Emily Benefer – Optical Assistant

Administration

Johanna Beattie – Group Services Manager Naomi Twigden – Group Services Team Leader Elviera Cowan – Group Services Administrator Virginia Parslow – Practicum Placement Coordinator

Rowena Knight-Brown – Group Services Co-

ordinator

Debbie Waayer – Research Programme Manager

Visiting Lecturers/ Honorary Academics Associate Professor Benjamin Thompson

Lecturer Isabelle Mareschal Lecturer Jacqueline Ramke

Grant Watters Keith Pine Martin Loertscher

Nicola Anstice Samuel Chiang

### **Molecular Vision Laboratory**

Director:

Prof. Paul Donaldson

Senior lecturer Dr Julie Lim Dr Ehsan Vaghefi

Senior research fellow Dr Angus Grey

Post-doctoral research fellows

Dr Rosica Petrova Dr Haruna Suzuki-Kerr Dr George Guo Dr Renita Martis

PhD students Ms Yadi Chen