CURRICULUM VITAE -- DR. WILLIAM K. STELL

[last modified: 18 June 2022]

I. BIOGRAPHICAL DATA

Name: William Kenyon Stell

Address: 128 Waldron Avenue
Okotoks, Alberta, Canada T1S 1C8
Telephone: 403-938-9339

Title: Professor Emeritus, Department of Cell Biology and Anatomy
University of Calgary – Cumming School of Medicine
3330 Hospital Dr. NW, Calgary, Alberta T2N 4N1
Telephone: 403-938-9339
Email: wstell@ucalgary.ca

Date of Birth: April 21, 1939
Place of Birth: Syracuse, New York. U.S.A.
Citizenship: Dual citizen, Canada and U.S.A.
Marital Status: Divorced, remarried (Kathie Roller-Stell); 2 children,
3 step-children; 2 grandchildren, 5 step-grandchildren

II. ACADEMIC RECORD

Degrees Awarded

1961 B.A. (Zoology, with High Honors) Swarthmore College, Swarthmore, Penna.
1966 Ph.D. (Anatomy), University of Chicago, Chicago, Illinois
1967 M.D. (with Honors) University of Chicago, Chicago, Illinois

Graduate Fellowships

1961-1962 Partial tuition, University of Chicago School of Medicine, Chicago, Illinois
1962-1963 United States Public Health Service Traineeship in Anatomy, University of Chicago, Chicago, Illinois
1963-1967 Medical Scientist Fellow of the Life Insurance Medical Research Fund, University of Chicago, Chicago, Illinois

III. AWARDS AND DISTINCTIONS

Phi Beta Kappa, Swarthmore College, 1961.
Society of the Sigma Xi, Swarthmore College, 1961.
E. Gellhorn Prize in Neurophysiology, University of Chicago, 1966.
Mosby Scholarship Book Award, University of Chicago, 1967.
Research to Prevent Blindness, Inc. - William and Mary Greve International Scholar, 1979-1980.
Visiting Fellow, Research School of Biological Sciences, Australian National University, Canberra, Australia, 1996

H. Talmadge Dobbs Lecturer in Ophthalmology, Emory Eye Center, Emory University School of Medicine, May 2006

Visiting Fellow, ARC Centre of Excellence in Vision Science, Research School of Biological Sciences, Australian National University, Canberra, Australia, July 2008-July 2009

Fellow of the Association for Research in Vision and Ophthalmology (FARVO):
"Silver" – May 2009 (one of ~300 awardees among ~11,500 members)
"Gold" – May 2012 (one of 34) – for long and exceptional service to ARVO

University of Calgary Faculty of Graduate Studies, My Supervisor Skills: *GREAT Supervisor Award*, September 2014 – recognizes supervisors from each graduate program for their outstanding supervision and mentorship of graduate students.

Visiting Professor, Hainan Eye Hospital, Zhongshan Ophthalmic Center, Sun Yat-sen University, December 2014 – November 2017.

Visiting Investigator, University of Canberra, Canberra, Australia, July-December 2019

Memberships In Professional Societies

Association for Research in Vision and Ophthalmology – member since 1968.
ARVO Fellow (2009), Gold Fellow (2012) – recognizing long, distinguished service

IV. RESEARCH AND PROFESSIONAL EXPERIENCE

Graduate Studies

1961-1967 Combined MD/PhD Program, University of Chicago

1966 Visiting Fellow, Department of Physiology, Keio University School of Medicine, Tokyo, Japan (Professor Tsuneo Tomita).

Postdoctoral Training

1967-1968 Staff Associate, National Institute of Neurological Diseases and Blindness, National Institutes of Health, Laboratory of Neurophysiology (Dr. Thomas G. Smith, Jr.), Bethesda, Maryland.

1968-1969 Staff Associate, National Institute of Neurological Diseases and Stroke, National Institutes of Health, Laboratory of Neuropathology and Neuroanatomical Sciences (Dr. K.C. Richardson) Bethesda, Maryland.

1969-1971 Senior Staff Fellow, National Institute of Neurological Diseases and Stroke, National Institutes of Health, Laboratory of the Director of Intramural Research (Dr. Henry G. Wagner), Bethesda, Maryland.

1969-1969 Investigador Invitado, Departmento de Neurobiología, Instituto Venezolano de Investigaciones Científicas, Caracas, Venezuela.

1971-1972 Senior Staff Fellow, National Institute of Neurological Diseases and Stroke, National Institutes of Health, Laboratory of Neurophysiology (Dr. M.G.F. Fuortes), Bethesda, Maryland.

UCLA School of Medicine

1972-1975 Associate Professor of Ophthalmology, University of California, Los Angeles, California.

1975-1976 Associate Professor of Ophthalmology and Anatomy, University of California School of Medicine, Los Angeles, California.
1976-1980 Professor of Ophthalmology and Anatomy, University of California School of Medicine, Los Angeles, California.
1978-1980 Associate Director, Jules Stein Eye Institute, UCLA.

University of Calgary Faculty of Medicine (now Cumming School of Medicine)
1980-1985 Head, Division of Morphological Sciences (now Department of Cell Biology & Anatomy), University of Calgary, Faculty of Medicine.
1985-1986 Chercheur Invité, Département de Neurophysiologie Appliquée, Laboratoire de Physiologie Nerveuse, Centre National de la Recherche Scientifique (CNRS), Gif-sur-Yvette, France (Dr. Jean Rossier).
1980- Professor, Department of Cell Biology & Anatomy, University of Calgary Faculty of Medicine (now Cumming School of Medicine).
1980-1999 Director, Lions' Sight Centre, University of Calgary, Faculty of Medicine.
1993- Professor, Department of Surgery, Division of Ophthalmology, University of Calgary, Cumming School of Medicine.
1996-1996 Visiting Fellow, Centre for Visual Sciences, Research School of Biological Sciences, Australian National University, Canberra, Australia (Prof. Ian. G. Morgan).
2008-2009 Visiting Fellow, ARC Centre of Excellence in Vision Science, Research School of Biological Sciences, Australian National University, Canberra, Australia, July 2008-July 2009.
2019 Visiting Scientist, University of Canberra, Australia, July-December 2019
2020 Retired from Faculty effective 01 July 2020; continuing as Prof. Emeritus

Other Professional Employment
01 May 2020 – 30 April 2025: Scientific Advisor, Eye Hospital of Wenzhou Medical University – paid part-time; renewable.
01 November 2020 – 31 October 2021: Scientific Advisor, Singapore Eye Research Institute (SERI) – paid part-time honorarium; renewable.

Professional Interests
Development of scientific approaches to ophthalmic disease (translation from basic science to clinical ophthalmology), especially experimental models of myopia and ocular growth regulation, and inherited causes of blindness.
Structure, function and chemistry of vertebrate visual pathways, especially the retina.
Analysis of neuronal structure by classical staining techniques, of synaptic ultra-structure by electron microscopy including freeze-fracture method, and of connectivity by structure/function correlation and serial sectioning.
Identification, localization and chemistry of neurotransmitter-mechanisms, especially peptidergic neurons and pathways, in the retina.
Neurogenesis and synaptogenesis in the retina. Control of cell proliferation.
Structure, function, and neurochemistry of centrifugal fibres to the retina.
Retinal circuitry underlying the optokinetic response.
Developmental neurobiology in tunicates.

Research Grants Held

Medical Research Council of Canada, (MRC).	1980-1982	$70,000
Medical Research Council of Canada, (MRC).	1981-1983	$66,400
Alberta Heritage Foundation for Medical Research	1981-1983	$202,000
Alberta Heritage Foundation Med. Res. (cap. equip)	1982	$110,000
Medical Research Council of Canada, (MRC).	1982-1984	$69,240
Medical Research Council of Canada, (MRC).	1983-1985	$60,000
Natural Sci. Eng. Res. Council Canada (NSERC)	1983-1985	$63,000
Medical Research Council of Canada, (MRC).	1984-1985	$40,000
Alberta Heritage Foundation for Medical Research	1985-1986	$7,600
Natural Sci. Eng. Res. Council Canada (NSERC)	1985-1986	$4,500
NATO Grant for International Collaboration	1985-1987	$6,000
Medical Research Council of Canada, (MRC).	1985-1988	$122,000
Medical Research Council of Canada, (MRC).	1985-1988	$171,000
Natural Sci. Eng. Res. Council Canada (NSERC)	1986-1987	$4,500
Natural Sci. Eng. Res. Council Canada (NSERC)	1986-1989	$88,500
NATO Grant for International Collaboration	1987-1988	$950
Medical Research Council of Canada, (MRC).	1988-1991	$180,000
Medical Research Council of Canada, (MRC).	1988-1991	$180,000
Natural Sci. Eng. Res. Council Canada (NSERC)	1989-1992	$96,000
Medical Research Council of Canada, (MRC)	1991-1992	$17,000
Medical Research Council of Canada, (MRC).	1991-1992	$13,000
Natural Sci. Eng. Res. Council Canada (NSERC)	1992-1995	$108,000
Human Frontier Sci. Progr. ($US-amt. to W.K. Stell:)	1992-1995	$85,000
Alberta Children's Hospital Foundation	1993-1994	$20,000
Marigold Foundation, Calgary	1994-1995	$15,000
Gustus Endowment, Univ. Calg. Faculty of Medicine	1994-1995	$15,000
Gustus Endowment, Univ. Calg. Faculty of Medicine	1995-1996	$8,000
Marigold Foundation, Calgary	1995-1998	$225,000
Medical Research Council of Canada (MRC)	1995-1998	$152,000
Natural Sci. Eng. Res. Council Canada NSERC)	1997-2000	$38,250
Lions Sight Centre Fund	2000-2001	$11,000
Joseph S. Stauffer Foundation, Toronto	2000-2001	$26,000
Gustus Endowment, Univ. Calg. Faculty of Medicine	2000-2001	$15,000
National Institutes of Health (NIH/NEI)	2000-2004	$330,000
Canadian Institutes for Health Research (CIHR)	2001-2004	$335,500
Natural Sci. Eng. Res. Council Canada (NSERC)	2001-2005	$146,000
Lions' Sight Centre Fund (U of C)	2004-2005	$18,100
Lions' Equipment Fund (U of C)	2004	$16,500
U of C Research Grants Committee	2005-2006	$3,900
Natural Sci. Eng. Res. Council Canada (NSERC)	2005-2006	$35,354
Canadian Institutes for Health Research (CIHR)	2005-2007	$180,644
"Retinal mechanisms of emmetropization and myopia in mammalian models" [PI]		
Natural Sci. Eng. Res. Council Canada (NSERC)	2006-2007	$28,000/yr
Lions' Sight Centre Fund	2006-2007	$4,985/yr

Natural Sci. Eng. Res. Council Canada (NSERC) 2007-2012 $30,522/yr
"Retinal Circuitry, Visual Function, and Control of Eye Growth"
[PI; one-year extension to 2013 without additional funding]

International Conference Travel Grant (UofC: URGC) 2007 $1,800

International Project Grant (UofC: URGC) 2007 $5014.54

Lions' Sight Centre Fund 2007-2008 $17,165/yr

Lions' Sight Centre Fund 2007-2008 $3,176/yr

AHFMR Visiting Scientist from Alberta 2008-2009 $21,400

Lions' Sight Centre Fund 2011-2012 $18,550
"Prevention and Rescue from Retinal Photoreceptor Degeneration by Systemic Small-Molecule Therapy" (Co-PI & written by me; PI: Torben Bech-Hansen)

Canadian Institutes for Health Research (CIHR) 2011-2014 $108,644/yr
"Experimental Reversal of Retinal Defects in Murine Models of CSNB2A"
(Co-PI; PI: Torben Bech-Hansen)

University Research Grants Committee, UofC 2012-2013 $17,500
"Retinal Mechanisms Underlying Myopia:
Light-Adaptation and Cell-Cell Coupling"
(PI; Seed Grant; term extended to 31 August 2014)

Natural Sci. Eng. Res. Council Canada (NSERC) 2013-2018 $25,000/yr
"Retinal Circuitry, Visual Function, and Control of Eye Growth"
Discovery Grant (PI) [RGPIN/131-2013]

Lions Sight Centre Fund, University of Calgary (PI) 2013-2014 $17,200
"X-Linked Congenital Stationary Night Blindness
(CSNB2A) – Studies In A Novel Animal Model"

Hong Kong Research Grants Council 2014-2017 $5,000
"Visual experience and astigmatic eye growth" (Co-PI)
(PI: CheaSu Kee, Hong Kong Polytechnic University;
RGC GRF PolyU 151011/14M)

Foundation Fighting Blindness (Toronto) 2011-2019 $24,000/yr
"FFB-EYEGEYE Research Training Fund" (PI)
(PI; Co-PI: Torben Bech-Hansen)

Alberta Ride For Sight – Casino Fund 2016-2019 $20,000/yr
"Core Support for Research on Mouse Models of CSNB2A" (Co-PI)
(Co-PI: Torben Bech-Hansen)

Novartis Pharmaceuticals Corporation - Contract 2017-2019 USD $128,094
"Evaluation of Novel Drugs as Therapy for Myopia" (PI)

Lions Sight Centre Fund, University of Calgary 2017-2018 $19,000/yr
"Treatment of Inherited Blindness: Establishing Additional Preliminary Data in a Mouse Model of CSNB"
(Co-PI; PI: Torben Bech-Hansen)

Lions Sight Centre Fund, University of Calgary 2020 $3,125
"Atropine for Myopia-Prevention: Is There a Better, Non-Muscarinic Target?" (PI)

Hong Kong Polytechnic University RCSV Smaller-Scale Project
"Establishing a novel animal model for keratoconus research: longitudinal changes in corneal biometry and biomechanics following corneal ectasia."
Apr 2022-Mar 2023 HK$250,000
(Co-PI; PI: Prof, Chea-su Kee, School of Optometry, HK Poly U)

Service To Editorial Boards

Member Editorial Board: Journal of Ultrastructure Research, 1973-1989; Journal of Neurocytology, 1990-1995; acting EBM for Investigative Ophthalmology & Visual Science (IOVS), 8 manuscripts in 2005; IOVS invitation to become regular EBM in 2007, declined because of prior commitments.

Reviewer of papers (~20/year most years, 44 in 2005, etc.) for journals including:
American Journal of Anatomy
Brain Behaviour and Evolution
Brain Research
Brazilian Journal of Medical and Biological Research
Canadian Journal of Zoology
Cell and Tissue Research
Cellular and Molecular Neurobiology
Copeia
Current Eye Research
eBioMed
eLife
European Journal of Neuroscience
Experimental Neurology
Experimental Eye Research
Gastroenterology
Investigative Ophthalmology and Visual Science (IOVS) (frequent Guest EBM)
Journal of Cell Biology
Journal of Comparative Neurology
Journal of Histochemistry and Cytochemistry
Journal of Neurochemistry
Journal of Neurocytology
Journal of Neurophysiology
Journal of Neuroscience
Journal of Physiology (Lond.)
Journal of Theoretical Biology
Molecular Vision
Neuroscience
Neuroscience Letters
Optometry and Vision Science
Proceedings of the National Academy of Sciences USA
Science
Sensory Processes
Vision Research

Visual Neuroscience

Service To Scholarly and Professional Societies

Co-Chairman, Section on Anatomy and Pathology, Association for Research in Vision and Ophthalmology, 1974-1975.

Member, Session Organizing Subcommittee for 21st Annual Biophysical Society Meeting, 1977.

Organizer of Symposium on the Physiology, Chemistry and Pharmacology of Identified Cells and Pathways in the Vertebrate Retina, for the Annual Meeting of the Society for Neuroscience, November 1978.

Chairman, Scientific Advisory Board and Member, Board of Directors, RP Research Foundation (Toronto), January 1989 to June 1995.

Western Canada High School, Calgary AB (lectured 1-3 hours/year) on vision and ophthalmology to high school biology classes (Mr. Barry Yee), 1996 – 2004.

Program Committee Member, Section on Anatomy and Pathology, Association for Research in Vision and Ophthalmology, 2006 – 2008.

Director, Research Programs, The Foundation Fighting Blindness - Canada (formerly the RP Research Foundation), contractual part-time position, July 2007 – August 2011

Association for Research in Vision and Ophthalmology, Fellow (2009), Gold Fellow (2012) – in recognition of long and exceptional service (program committees, IOVS editorship and reviewing, etc.)

Program Committee Member (Organizer of New Investigator sessions), ISER 2010 (International Society for Eye Research, Biennial Conference, Montreal, July 2010)

Program Committee Member (Organizer of Retinal Mechanisms of Myopia), IMC 2010 (International Myopia Conference, Tübingen, Germany, July 2010)

Expert Scientific Advisor, The Foundation Fighting Blindness - Canada (formerly the RP Research Foundation), unpaid volunteer position, September 2011 – January 2016

Program Committee Member (Organizer of final wrap-up session, “Is ‘Light a Panacea for Prevention of Myopia?”; and organizer of publishing conference Proceedings), IMC 2015 (International Myopia Conference, Wenzhou, China, July 2015)

Organizer of Myopia Session for ISER 2020 (International Society for Eye Research, biennial research conference); was to be held in Buenos Aires, Argentina, October 2020, but cancelled because of COVID-19 pandemic..

Service to Government Agencies

Site Visit Committee of Visual Sciences Study Section, National Eye Institute, at University of Utah, March 1973.

Reviewer of research grant applications, National Science Foundation; 4 in Neurobiology, 8 in Sensory Physiology and Perception and 1 in Division of International programs since 1973 (through 1980; at least 15 more to present).

Reviewer of application for NIH Institutional Postdoctoral Fellowship Program June 1975.

Reviewer of National Eye Institute Individual Research Grant Application June 1976.

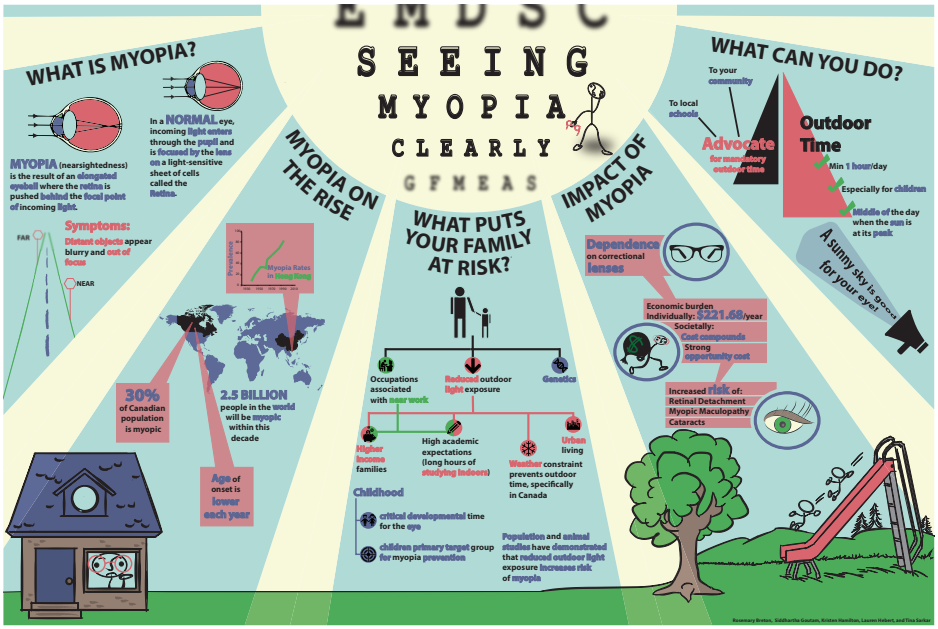
Reviewer of Research Grant applications for Australian Research Grants Committee, 3 since 1976.
Reviewer of applications to Advanced Study Institute Programme of NATO, 3 since 1976.
Member of ad hoc committee on advancement of NIH staff person to permanent status (tenure equivalent), April 1978.
Reviewer of patent report/application for University of California Board of Patents, May 1978.
Reviewer of research grant and postdoctoral assistant applications for Netherlands National Science Foundation, November 1982 and April 1983.
Outside Consultant to Board of Scientific Councilors, NINCDS, NIH; site visit May 1984.
Member, MRC (Canada) grants review committee on Neuroregulatory Mechanisms, 1988-1990.
Reviewer of research grant applications to MRC/CIHR, NSERC, BC Health Care Research Foundation, NHMRC (Australia), and Human Frontier Science Programme (generally ≥1 every year).
Reviewer of research grant applications to Philip Morris External Research Program, 1 in 2004, 3 in 2005.
External ad hoc reviewer of grant aplication to NEI, NIH, in October 2006; invited to review resubmission in August 2007 (declined); re-reviewed March 2008.
External ad hoc reviewer of grant applications: Hong Kong, Singapore, 2008-2012.
External ad hoc reviewer of grant application to NIH, BVS Study Section, February 2012.
Many others since then.

Academic Activities At The University Of Calgary: Medical

Clinical skills: Introduction to Physical Examination. Small-group preceptor (annual, 10 weeks x 4 hrs/wk). Annually, 1981 - 1994.
Musculoskeletal System Unit: Histology of Skin, Muscle and Nerve. Lecture (occasional). Preceptor for seminars on anatomical-clinical correlation, 1989 – 1997.
Medical Sciences (Graduate Program): Histology. Co-Chairman and Lecturer, 1984.
Medical Sciences, Techniques in Biomedical Research: Electron Microscopy, 1981-1983.
Medical Histology, Lab Instructor, 1986-1995; Lecturer on muscle, circulatory and nervous systems, 1988-1994.
Principles for Medicine, introductory histology and anatomy, tutor, 1995-1997.
Vision Research Seminar, Coordinator. Annual, 1982-1984.
Renal System Unit: Anatomy and Histology of Kidneys & Urinary Tract Lecturer and Lab Instructor, annually 1989-1997. Course committee representative from Anatomy, 1990-1997.
Reproductive System Unit: Histology of Female Reproductive Tract. Lecture and Lab, annually 1989-1997. Course committee representative from Anatomy, 1991-1997.
Director, Lions' Sight Centre, 1980-1999.
Chairman, Lions' Sight Centre Executive Committee, Faculty of Medicine, continuing

Animal Care Committee, Faculty of Medicine, 1998-2004
Member, Student Affairs Committee, Faculty of Medicine, 2004-2008.
Chair, VP (Acad) Special Committee of Investigation, 2005-2006.
Member, GFC Committee to Review Interim Dean, Faculty of Graduate Studies, 2005.
Co-Chair, Science Student Appeals Committee, Faculty of Medicine, 2006-2012.
Member, Medical Student Appeals Committee, 2010-2014
Faculty Advisor to Medical Students, 1-2 per year, 2007-present
Director, Junior Faculty Mentorship Program, Hotchkiss Brain Institute, May 2010-June 2013.
Member, Faculty Promotions Committee, 2014.
Research Director, Division of Ophthalmology, Department of Surgery, University of Calgary Faculty of Medicine, 2009-2011.
Chair, Research Committee, Department of Surgery, Division of Ophthalmology, University of Calgary, Faculty of Medicine, 2007-2011.
Member, Surgery Research Committee, Department of Surgery, University of Calgary Faculty of Medicine, 2008-2011.
Member, Residency Training Committee and Residents Selection Committee, Department of Surgery, Division of Ophthalmology, University of Calgary, Faculty of Medicine, 2005-2011.
Departmental (Cell Biology & Anatomy) representative to The University of Calgary Faculty Association, 2016-2019.
Member, Executive Faculty Council, Cumming School of Medicine, 2016-2020.
Member, Taskforce for Unit & Curricular Review, Graduate Sciences Education, Cumming School of Medicine, 2016-2017.

<u>Academic Activities At The University Of Calgary: Undergraduate (BHSc – Honours)</u>
MDSC 402, Organismal Biology: Annual lecture on “Anatomy of the Eye”, 2006-2008.
MDSC 402, Organismal Biology: Preceptor of student group research project Oct-April, 2008-2009 and 2010-2011.
MDSC 508, B.H.Sc. Honours Thesis – Research In Progress, Small Group Preceptor, 2009-present.
O’Brien Centre for BHSc Mentorship Coordinator, September 2011-2014.
Faculty Advisor to BHSc students, 1-2 per year, 2008-present
Examiner and Chair of Examining Committees, BHSc Honours Theses, 2009-2015.
MDSC 308, Interdisciplinary Research Approaches, F2015: Faculty Advisor to class group (Sid Goutam, Tina Sarkar, Kristen Hamilton, Lauren Hebert) on designing a public health/education poster on myopia and good practices to prevent it. Their poster (reproduced below) won First Place in the class poster competition.



Academic Activities At The University Of Calgary: Graduate Neuroscience

Basic Neuroscience (II) for graduate students, lectures on neurohistology, vision and visual system anatomy and physiology, 1992-1995, 2000-present.

Member, Graduate Education Committee (GEC), Neuroscience Program, 2000-2008.

Graduate Coordinator and Chair of GEC, Neuroscience Program (MDNS), ~75 students in thesis-based MSc or PhD program (~50% each), 2001-2007; Co-Coordinator, 2007-2008.

DUTIES AS GRADUATE EDUCATION COORDINATOR:

- Sign all papers for all program events of all Neuroscience students
- Determine suitability of faculty for supervisory responsibility
- Approve supervisory committee and examining committee membership
- Coordinate awarding of FGS, GRS, GAT, other internal awards to Neuroscience students
- Nominate students for Open Scholarships, UTI Fellowships, other special awards
- Mediate conflicts between students, supervisors & Committee members
- Counsel graduate Neuroscience students on scholastic and personal matters
- Review annual progress reports
- Ensure that committee meetings, annual reports, research seminar requirements are met
- Notify Neuroscience faculty and students of important decisions, events, awards, milestones
- Appoint coordinators of core Neuroscience graduate courses and monitor course quality
- Periodically review rules and procedures and introduce changes as needed

Member, Faculty of Graduate Studies (FGS) Council, 2001-2008

Member, Striking Committee (standing committee), FGS Council, 2003-2008

Member, Student Appeals Committee (standing committee), FGS Council, 2004-2008; Chair, 2006-2007.

Systems Neuroscience (MDSC 619.02), Winter Semester core course for Neuroscience Graduate Students

Lecturer & Sensory Systems Module Coordinator, 2009-2018. ~8 hrs lecture + 8 hrs administration per year.

Course Coordinator, 2014 (Acting), 2015-2018 (Full). 40 hrs administration/year

Medical Science Directed Study Course (MDSC 755) – Retina Tutorial for BME PhD Student – "Retinal Structure, Function, Development, Degeneration and Repair", W2015. Course organizer and chair. Class time 3 hrs/wk; preparation time: same.

Undergraduates – Honours Theses Supervised:

Brittany Carr, BHSc Honours Thesis Supervisor, Sept. 2010-April 2011 – Retinal Circuitry and Visual Function in *Cacna1f*^{G305X} Knockout Mice

Edwin Cheng, BHSc Honours Supervisor, Sept. 2011-April 2012 – Localization of eNOS, iNOS and Nitric Oxide Action in the Chicken Retina.

Prima Moinul, BHSc Honours Supervisor, Sept. 2011-April 2012 – Prevention of Form-deprivation Myopia by Sinusoidally Flickering Light.

Janessa Green, BHSc Honours Thesis (Co-Supervisor), September 2012-April 2013 – The Influence of Failed Synaptogenesis on Retinal Development and Aging.

Kimberly Quach, BHSc 4th Year Honours Thesis, "Role of Nitric Oxide (NO) In Control of Eye Growth and Prevention of Myopia", September 2013 – May 2014.

Michelle Teves, BSc Neuroscience 4th Year Honours Thesis, "Gap junctions and their role in chick myopia development", September 2014 – April 2015.

Ladan Ghodsi, BHSc (Hons thesis), "Blue SAD light protects against form-deprivation myopia in chickens", September 2014 – April 2015.

Vanessa Popa, BHSc (Hons thesis), "Retinal control of lens-induced astigmatism in chicks", September 2014 – April 2015.

Nadine Odermatt, BHSc (Hons thesis), "Retinal gap junctions: Roles in visual regulation of eye growth and prevention of myopia", September 2014 – April 2015.

Cynthia Thu Nguyen, BHSc 4th Year Honours Thesis, "Retinal mechanisms for prevention of myopia by short-wavelength light", September 2016-April 2017.

Vyoma Shah, BHSc (Hons Thesis), "Nailing the Role of Retinal Cell-Cell Coupling in Myopia-Prevention", September 2017 – April 2018.

Eden Bless Pagtalunan, BHSc (Hons Thesis), "Scotopic Visual Function in a Mouse Model of Autism", September 2017 – April 2018. *Ad hoc* advisor.

Undergraduates – Special Projects Supervised:

Sherri Tran, BHSc Student (year 3), MDSC 722 Directed Study (F'05-W'06) – Retinal basis of optokinetic responses in chicks

Natalia Beloukhina, BHSc student (year 5), BCEM-CMMB 507 - Directed Study (F'07-W'08) – Chemical control of eye growth

Wesley Chan, Catrina Loucks, Judy Luu & Eric Tse, BHSc students (year 3), Medical Sciences 402 – Research in Organismal Biology (F'07-W'08) – Role of Nitric Oxide in Myopia-Prevention

Edwin Cheng, Michelle Huie, Prima Moinul & Minjai Suk, BHSc students (year 3), Medical Sciences 402 – Research in Organismal Biology (F'10-W'11) –

Regulation and Potential Reduction of Form Deprivation-Induced Myopia in the Chick Model

Amrita Bhattacharjee, Dhekra Al-Basha, Fariha Ahmed, Monica Chawla & Nikytha Antony, BHSc students (year 3), Medical Sciences 402 – Research in Organismal Biology (F'11-W'12) – Activation of Dopamine and Glucagon Pathways by Grating Stimuli That Prevent Myopia in Chicks.

Bohyung Min, Hannah Mercader, Jenny Hong, Jesselyn Ling & Olivia Lee, BHSc students (year 3), Medical Sciences 402 – Research in Organismal Biology (F'11-W'12) – Modulation of Spatiotemporal Tuning of the Optokinetic Response in Chicks by the Light-Adaptational Messengers, Dopamine and Nitric Oxide.

Corinna Liu, BHSc Student, MDSC 528 course (Independent Research Project), "Flickering Light Prevents Myopia". Supervisor, September 2012-April 2013.

Fawaz Alshammari, Cathy Duncan & Nadine Odermatt, B.H.Sc. students (year 3), MDSC 402 – Research in Organismal Biology (F2013-W2014) – "Localization of retinal creatine enzymes and transporters in *Gallus gallus*". Co-Supervisor with Dr. Cairine Logan.

Jordan Huang, BHSc Student (year 3), MDSC 528 course (Independent Research Project), "Enhancing Penetration of Viral Vector From Vitreous Into Retina in the Chick Eye". Supervisor, September 2017-April 2018.

<u>Summer Students Supervised</u>:

Helga Reisch, Summer Student (1993) – Immunoassay for Rfamide-like peptides.

Johnny Poon, Summer Student (1996) – Excitotoxicity of NMDA and quisqualate.

Kevin Baird, B.Sc. (U of C) Senior Research Project (1999-2000)

Azmat Ramal-Shah, High School Science Enrichment Student (winter 2001)

Azmat Ramal-Shah, Summer Student (2001) – Lead & mercury toxicity in the retina

Shaun Deen, Summer Student (2001) – NO toxicity in the retina.

Peter Selat, Summer Student (2001) – Development of immunoassay for glucagon

Dinh Nguyen, Summer Student (NSERC, 2001) – Development of RT-PCR assay for glucagon gene expression

Conrad Liu, Summer Student (AHFMR, 2001; 2002, 2003) – Identification of visual stimulus parameters that are critical for preventing myopia

Shikha Garg, Summer Student (2002, 2003) – Visual regulation of corneal growth and refraction: effect of flicker

Anna Yu, Summer Student (2002, 2003) – Do dopamine and glucagon receptor antagonists cause myopia?

Cyrus Wong, Summer Student (NSERC, 2003) – Role of retinal pigment epithelium in control of eye growth

Natalia Beloukhina, Summer Student (2003, 2004, 2005) – Prevention of myopia by glucagon independent of inner retinal activity

David LeBaron, Summer Student (NSERC, 2004; AHFMR, 2005) – Dependency of eye growth on specific spatial frequencies

Samapti Samapti, Summer Student (AHFMR, 2004, 2005) -- Role of retinal pigment epithelium in control of eye growth

Giselle DeVetten, Summer Student (2005) – Dependency of eye growth on stimulus orientation and defocus

Sherri Tran, Summer Student (NSERC, 2005; UC Undergraduate Research Scholarship Award, 2006) – Visual acuity of chicks and the visual effects of intraocular TTX and kainic acid

Anthony Seto, Summer Student (AHFMR, 2006) – Site of action of glucagon in preventing myopia in the chick

Wesley Chan, Summer Student (SCP, 2006) – A chick model for CSNB1 and the role of nyctalopin in eye growth

Floria Tse, Summer Student (NSERC, 2006) – Identification of optimal spatial frequencies for myopia-prevention in the chick

Brittany Carr, BHSc Summer Student (OCSS Award, 2010) – Retinal Circuitry, Visual Control of Eye Growth, and Prevention of Myopia

Nicole Sehn, BHSc Summer Student (OCSS Award, 2010) – The optokinetic response: A powerful analytical tool for assessing retinal function in laboratory animals

Edwin Cheng, BHSc Summer Student, May-August 2011 – Identification of Retinal Pathways that Prevent Myopia in the Chick Form-Deprivation Model (NSERC Undergraduate Research Scholarship)

Prima Moinul, BHSc Summer Student, May-August 2011 – Is Temporal Modulation of Light Intensity an Effective Treatment to Prevent Myopia? (O'Brien Centre Summer Studentship)

Solar Tze, BHSc Summer Student, May-August 2011 – Immunocytochemical Characterization of the *Cacna1f* ^{G305X} Mouse Retina (Co-Supervised with Dr. Torben Bech-Hansen) (O'Brien Centre Summer Studentship)

Derek Eng, BSc-Neurosci Summer Student, June-August 2012 – Role of Coupling via Gap Junctions in Regulation of Eye Growth and Myopia.

Janessa Green, BHSc Summer Student, May-August 2012 (Co-Supervisor with Dr. Torben Bech-Hansen) – The Influence of Neuronal Function on Retinal Vascular Development.

Corinna Liu, BHSc Summer Student (OCSS Award), "Prevalence of Myopia in Rural vs Urban Schools, in Cebu Province, Philippines", May-July 2013.

Michelle Teves, BSc Neuroscience Summer Student (AIHS Studentship), "Control of Gap Junctions in Chick Retina by Antisense and Peptidomimetic Therapies", May-August 2013.

Maximilien Boulet, BSc, Summer Student (NSERC USRA), "Astigmatism: Studies of its Biological Basis in a Novel Animal Model", May-August 2014.

Kimberly Quach, B.H.Sc. (Hons), FFB-EYEGEYE Research Trainee-Summer Student, ""Role of Nitric Oxide (NO) In Control of Eye Growth and Prevention of Myopia", May-June 2014.

Ladan Ghodsi, BHSc Summer Student (NSERC USRA), "Melanopsin system and the regulation of retinal function, eye growth and myopia", May-August 2014.

Michelle Teves, BSc Neuroscience Summer Student (PURE Awardee), "Gap junctions and their role in chick myopia development", May-August 2014.

Cynthia Nguyen, BHSc Summer Student (PURE Awardee), "Myopia prevention by blue-LED light: a surrogate for sunlight", May-August 2015. … *Students' Union Undergraduate Research Symposium - Office of the Vice President Award*

($1000; one of two awarded), 27 November 2015; Best Undergraduate Research Talk, Best Undergraduate Student Poster, HBI Research Day, 19 May 2017.

Jeremy Kang, Visiting Summer Student (PhD Candidate in Optometry, Hong Kong Polytechnic University), "Corneal cellular and histological changes in lens-induced astigmatism in the chick", May-August 2015.

Vyoma Shah, BHSc Summer Student, "Avian Adeno-Associated Virus as a Genomic Tool for Manipulation of Chick Retina"; (O'Brien Centre Summer Studentship) May-August 2016; (University of Calgary URS) May-June 2018.

Aisha Lillywhite, BHSc Summer Student, "Retinal Control of Eye Growth and Myopia in Chick Model", Markin USRP in Health & Wellness, May-August 2018.

Graduate Students Supervised:

Alexandra Harrison, M.Sc. awarded in 1984 (Supervisor, July 1981 - April 1984).

Mary Catherine Needler, M.Sc. candidate (Supervisor, August 1983 - December 1983)

Victor Owusu-Yaw, M.Sc. awarded in 1990 (Supervisor, September 1988 - June 1990).

Shane Mortimer, M.Sc. awarded 1992 (Supervisory Committee member, 1990 - 1992).

Ivar Kljavin, Ph.D. awarded in 1993 (Acting Supervisor, September 1990 - 1993). "Factors that influence neurite outgrowth from retinal non-projection neurons."

Baerbel Rohrer, Ph.D., awarded in 1995 (Supervisor, 1991 - 1994). "Roles for dopamine and basic fibroblast growth factor in the regulation of ocular growth".

Andy Fischer, M.Sc. awarded in 1995 (Supervisor, 1993 - 1995).

Andy Fischer, Ph.D. awarded 1999 (Supervisor, 1995 - 1999). "Muscarinic mechanisms in myopia and ocular growth".

Huy Hoang, M.Sc. awarded in 1995 (Supervisor, 1994 - 1996).

John Julyan-Gudgeon, M.Sc. awarded in 1999 (Supervisor, 1996 - 1999).

Jennifer McGuire, M.Sc. awarded in 1999 (Supervisor, 1997-1999).

Kevin Baird, M.Sc. awarded in 2002 (Supervisor, 2000 – 2002). "Platelet-activating factor-induced uveitis and nitric oxide toxicity in the chick retina." Microfiche.

Alana Luft, M.Sc. awarded in 2002 (Supervisor, 2000 – 2002).

Kathy Lencses, M.Sc. awarded in 2002 (Supervisor, 2000 – 2002)

Dulce Alcuino, M.Sc. candidate (Supervisor, July 2002-September 2003)

Anne Lyn Ayotte, M.Sc. awarded in 2006 (Supervisor, September 2003-January 2006)

Stephan Bonfield, M.Sc. awarded in 2009 (Supervisor, January 2006 – June 2009), "Phenotyping the Retina Using the Behavioural Optokinetic Response".

Qing (Hope) Shi, Ph.D. awarded 2014 (Supervisor, September 2009 – 2014). "Mechanisms of Adaptation to Mean Light Intensity in Chick Retina". http://hdl.handle.net/11023/1637

Karalee Shideler, M.Sc. awarded (Co-Supervisor [effectively Supervisor], January 2010 – March 2011). "Immunohistochemical Characterization of the Primary Auditory Cortex in Mice".

Brittany Carr, PhD awarded in 2017 (Supervisor, September 2011 – April 2017). "Myopia-inhibiting muscarinic receptor antagonists in the chick: A case of mistaken identity?". QE-II Master's Scholarship (2012,2013); Alberta Graduate Student Scholarship (2013); QE-II PhD Scholarship (2014): ACHRI-Grant Gall Student Traineeship (2014, 2015); NSERC PGS-D Graduate Scholarship (2015-2017).

Derek Waldner, PhD awarded in 2018 (Supervisor, July 2014 – 2018) “Channeling Vision: Voltage-Gated Calcium Channels of Rods and Cones”.

Postdoctoral Fellows Supervised

Steven E. Walker, Ph.D. SUNY Brooklyn (Pharmacology), 1980-1985. Physiology of putatively peptidergic retinal pathways.

Jan-Henrik Kock, Ph.D. Helsinki University (Zoology), 1981-1982. Development of photoreceptor-bipolar synapses.

Alexander K. Ball, Ph.D. Dalhousie University (Anatomy), 1981-1984. Immunocytochemical localization of neuroactive peptides in the retina.

Reto Weiler, Ph.D. Univ. München (Zoology), 1982-1984 Neuropeptides and retinal function.

Nina Tumosa, Ph.D. SUNY Albany (Neuroscience), 1982-1984. Immunocytochemical localization and identification of cholinergic pathways in the retina.

Ann L. Kyle, Ph.D. University of Alberta (Zoology), 1983-1986. Central pathways of the nervus terminalis: anatomy and role in reproductive behaviour.

Linda Muske, Ph.D. University of Oregon (Neuroscience), 1983-1986. Role of the nervus terminalis in vision.

Ryuuzo Shingai, Ph.D. Kyoto University (Biophysics), 1983-1984. Biophysics of transmitter action on isolated retinal neurons. (Co-supervised with Dr. Fred N. Quandt).

Hiroyuki Uchiyama, Ph.D. Osaka University (Comparative Neuroanatomy), 1986-1988. Anatomy of retinal efferent fibre pathways.

Tim Magnus, Ph.D. University of Calgary (Comparative Endocrinology), 1987-1989. Radioimmunoassay for GnRH and its precursor in goldfish terminal nerve.

Keiko Yamaguchi, M.D. Sendai University (Ocular Biochemistry), 1988-1989. Development of radioimmunoassay for PCNA.

Dasan Luo, M.D., Ph.D. Shanghai Medical University (Neuroscience), Simon Fraser University (Neuroendocrinology), 1989-1991. Functional modulation of retinal opiate system.

Ran Sun, M.D. Shenyang Medical School (Ocular Pathology), 1990-1991. Functional regulation of proliferation of retinal neuroblasts.

Ruth L.P. Seltner, Ph.D. University of Waterloo (Optometry), 1992 - 1995. Regulation of ocular growth in form-deprivation myopia.

Konrad Schultz, Ph.D. University of Oldenburg (Neurobiology), 1993 - 1995. EM-immunocytochemistry of retinal glutamate receptors.

Carlos Mora-Ferrer, Ph.D. University of Mainz (Neurobiology), 1995. Localization of dopamine D1 receptor protein and mRNA in goldfish retina.

Isabelle Dabin, Ph.D., University of Paris (Developmental Ocular Biology), 1995-1996. Antisense oligonucleotide block of retinal proenkephalin synthesis.

Yan Ming, M.D., Ph.D. (P.R. China), 10/2000 – 09/2002. Sodium nitroprusside toxicity: chick eye model of chorioretinal degeneration.

Xingwu Zhong, M.D. (P.R. China), 07/2003 – 10/2003. Preliminary identification of defocus-sensitive neurons and circuits in the monkey retina.

Kirstan Vessey, Ph.D. University of Melbourne (Au.), 07/2003 – 08/2004. Experimental myopia; glucagon as retinal “STOP” signal.

Xingwu Zhong, M.D., M.Sc., Ph.D. (P.R. China), 08/2006 – 02/2007. Definitive identification of neurons and circuits tuned to good focus or plus-defocus in the monkey retina.

Syeda Farina Asghar, PhD, 06/2019-06/2020. Site and mechanism of action of atropine as inhibitor of form-deprivation myopia in the chick.

Visiting Scientists

Mustafa B.A. Djamgoz, Ph.D. (Imperial College, London)
Sept.-Oct. 1981 - Physiological actions of peptides in the retina.
Sept.-Oct. 1983 - TTX-independent conduction in horizontal cell axons.

Ken-Ichi Naka, Ph.D. (National Institute for Basic Biology, Okazaki, Japan)
Aug.-Sept. 1982 - Electrophyhsiology of retinal neurons.

Ruggero Pierantoni, Ph.D. (Istituto di Cibernetica e Biofisica, C.N.R., Camogli, Italy)
April-Sept. 1984 & June-July 1985 - Control of neuronal replication in the retina.

Genyo Mitarai, M.D. (Nagoya University) October 1984 - February 1985 - Combined functional & immunocytochemical identification of retinal neurons

Pier-Lorenzo Marchiafava, Ph.D. (Istituto de Neurofisiologia, C.N.R., Pisa, Italy)
May-June 1985 - Structural basis of coupling between double cones in teleost fish.

Teruya Ohtsuka, Ph.D. (National Institute for Physiological Sciences, Okazaki, Japan)
Oct 1987 - Feb. 1988 - Physiology and pharmacology of terminal nerve efferents to the retina.
Dec 1992 - Feb. 1993 - Identification of cone types with antisera.

Hans-Joachim Wagner, Ph.D. (Anatomisches Institut, Universität Tübingen).
Sept. 1991 - December 1991 - Localization of dopamine D2 receptors in the retina.

Koroku Negishi, MD (Neuroinformation Research Institute, Kanazawa, Japan)
June 1987-September 1989 (Several short visits); May-October, 1992 (AHFMR Visiting Scientist); use of PCNA to detect replicating cells in goldfish retina; control mechanisms of cell replication.

Bao-guo Luo, M.D. (Department of Anatomy, Shanghai Medical University)
September 1989-September 1991 - Structural correlates of dopaminergic system in mammalian retina.

Ian G. Morgan, Ph.D. (Visual Science Centre, RSBS, ANU, Canberra, Au.)
May 1999-July 1999 – Neurotoxic effects of colchicine on retinal neurons and eye growth.

Jaime Tejedor Fraile, M.D., Ph.D. (Madrid, Spain), October-December 2006. – Visual processing and experimental myopia in a mammalian model, the mouse.

Graduate Student Supervisory Committees And Examinations

John English, M.Sc. Candidate (Med. Sci./Neuro), supervisory committee, 1980-1982.

Keith Fry, Ph.D. Candidate (Med. Sci./Neuro), supervisory committee, 1981-1983, plus doctoral examination, May 1983.

Alexandra Harrison, M.Sc. Candidate (Med. Sci./Neuro), chairman of committtee, 1981 to 1984.

Mary Kate Needler, M.Sc. Candidate (Med. Sci./Neuro), provisional sponsor, 1983.

Victor Owusu-Yaw, M.Sc. Candidate (Med. Sci./Neuro), chairman of committee, 1988-1990.
Janet Richmond, Ph.D. Candidate (Med. Sci./Neuro), Thesis examiner, 1989.
Shane Mortimer, M.Sc. Candidate (Med. Sci./Endocr.) supervisory committee, 1989-1992.
Ivar Kljavin, Ph.D. Candidate (Med. Sci./Neuro), chairman of committee, 1989-1993.
Isabelle Roger, M.Sc. Candidate (Med. Sci./Neuro), supervisory committee, 1992-1994.
Brent Reynolds, Ph.D. Candidate (Med. Sci./Neuro), candidacy committee, 1992.
Christa Mascher, M.Sc. Candidate (Med. Sci./Neuro), supervisory committee, 1993-present.
Andy Fischer, M.Sc. Candidate (Neurosci.), chairman of thesis examining committee, 1995
Huy Hoang, M.Sc. Candidate (Neurosci.), chairman of thesis examining committee, 1996
Sherry Fawcett, Ph.D. Candidate (Psychology), candidacy committee, 1995.
Kirsten Wright, M.Sc. Candidate (Neurosci.), supervisory committee, 1995-1996.
Matthew Larouche, M.Sc. Candidate (Neurosci.), supervisory committee, 1998-2000
Elaine Beierbach, M.Sc. Candidate (Neurosci.), supervisory committee, 1998-2000
Justyna Sarna, M.D./Ph.D. Candidate (Neurosci.), supervisory committee, 1998 - 2005
Jennifer O'Hara, Ph.D. Candidate (G-I/Neurosci.), supervisory committee, 2001-2007
Kimberly Samkoe, Ph.D. Candidate (Chemistry), supervisory committee/Candidacy, 2001 – 2007
Noelle Orton, Ph.D. Candidate (Human Genetics), supervisory committee, 2002 – 2006, PhD Candidacy Examination 2005; MSc Thesis Defense Examination, August 2006.
James Croft, Ph.D. Candidate (Med. Sci.), Candidacy, Internal-External Examiner, 2002 & 2003
Trevor McGill, M.Sc. Thesis Defense (Neuroscience, Univ. of Lethbridge), External Examiner, 19 April 2004.
Lin Ma, Ph.D. Candidate (Biochemistry & Molecular Biology), Internal-External Candidacy Examiner, 15 October 2004
Michelle Patterson, Ph.D. Thesis Defense (Biology, University of Alberta), External Examiner, 1 December 2004.
Roger Gagnon, M.Sc. Thesis Defense (Psychology), Internal-External Examiner, 08 August 2005; member PhD Candidacy committee, September 2005 – .
S. Metlapally, Ph.D. Thesis Defense (Optometry, University of Melbourne, Au.), External Referee, November 2005.
Jennifer O'Hara, Ph.D. Thesis Defense (Gastrointestinal Sciences), Examining Committee Member, 2007.
Kimberley Samkoe, Ph.D. Thesis Defense (Chemistry), Examining Committee Member, August 2007.
Carla Jocelyn Abbott, Ph.D. (University of Melbourne, VIC, Au.), External Reader (Thesis Examiner), July 2008.
Karalee Shideler, M.Sc. Candidate (Neuroscience), Member, Supervisory Committee, 2009-2011, Thesis Examiner 2011, degree awarded 2011.

[Presided over countless M.Sc. & Ph.D. Thesis Examinations and Ph.D. Candidacy Examinations (≥10/year) as Graduate Coordinator in Neuroscience, 2001-2007]

Marcela Hermina Strungaru, PhD (Universty of Alberta, Medical Sciences – Medical Genetics), External Thesis Examiner, "Investigation of the role of *PITX2* in ocular expression pathways and human disease." 21 May 2010.

Blake Dornstauder, MSc (Ophthalmology, University of Alberta), External Thesis Examiner, "Prevention and Treatment of Age-Related Macular Degeneration (AMD)", 09 July 2010.

Baskar Arumugam, PhD (Uni Melbourne School of Graduate Research, Au), External Reader (Thesis Examiner), "Strategies to inhibit myopia: pharmacological and optical approaches", June 2011.

Angeliza Querubin, PhD (Biomedical Science and Biochemistry, Australian National University,), External Reader (Thesis Examiner), "Neuronal Circuitry of the Pigeon Retina (*Columba livia*) – The Morphological Classification and Organization of Various Neuronal Types", July 2012.

Narsis Daftarian, MD; PhD Candidate (Neuroscience: C. Schuurmans); Member, Supervisory Committee, August 2013-August 2014; Acting Supervisor, December 2013-January 2014.

Patrick Hsia-Pai Wu, PhD (University of Calgary, Department of Psychology), Internal-External Thesis Examiner, "Synaptic Zinc and Cortical Sensory Processing in the Laboratory Mouse". 16 December 2013.

Johanna Hung, PhD (Neuroscience: Bin Hu), Member, Thesis Supervisory Committee (April 2014) and Thesis Examining Committee, "Hierarchical cortical maturation and its disruption in the valproic acid model of autism in rats." 12 August 2014.

Nobuhiko Tachibana, PhD Candidate (Neuroscience: C. Schuurmans); External Examiner, PhD Candidacy Examination, "Role of Pten in retinal morphogenesis." 27 August 2014.

Luca Yangyang Li, MSc Candidacte (Neuroscience: Richard Frayne), "Predicting Post-Operative Functional Performance, Treatment Path, and Overall Survival in Glioblastoma Patients based on Tumour Location and Size"; MSc Thesis External Examiner, December 2016.

Rebecca Klein, MSc Candidate (Neuroscience: Michael Hill), "Stroke in Railway Workers, Pilots and Commercial Vehicle Operators: The Risk of a Future Event"; Member, Supervisory Committee, January 2015-September 2016.

Colin Xiong, PhD Candidate (Neuroscience: Jun Yan), Member, Supervisory Committee, January 2015-2017. "Thalamocortical forward suppression in the primary auditory cortex." PhD Thesis Examiner, August 2017.

Tooka Aavani Collette, PhD Candidate (Neuroscience: Carol Schuurmans), "Elucidating the role of Pten in photoreceptor development, survival and integration"; Member, PhD Supervisory Committee and Candidacy Examination Committee, January 2015-June 2016; Candidacy Examiner, 19 May 2016.

Abdulaziz Alarafi, PhD Candidate (Medical Sciences: Tannin Schmidt), "The Composition of PRG4 and HA in Vitreous Humor and its Contribution to Rheological Properties"; Thesis Proposal Examiner, July 2017.

Jiyao Qi, MSc Candidate (Neuroscience: Jun Yan), "Cellular Mechanism of Corticofugal Modulation in the Auditory Midbrain"; Member, MSc Supervisory Committee, January 2016-October 2017; Thesis Examiner, October, 2017.

Xiaohan Bao, MSc (Medical Science: Jun Yan), "The Composition of PRG4 and HA in Vitreous Humor and its Contribution to Rheological Properties" – Internal-External Examiner, MSc Thesis Defense, 31 August 2017.

Abdulaziz Alarafi, PhD Candidate (Medical Sciences: Tannin Schmidt), "The Composition of PRG4 and HA in Vitreous Humor and its Contribution to Rheological Properties"; Field of Study Examiner, November 2017.

Abdulaziz Alarafi, PhD Candidate (Medical Sciences: Tannin Schmidt), "The Composition of PRG4 and HA in Vitreous Humor and its Contribution to Rheological Properties"; PhD Thesis Examiner, 30 October 2019.

Abdullah Sarhan, PhD Candidate (Computer Sciences, Jon Rokne), "Integrating Deep Learning and Image Processing Techniques into a Hybrid Model for Glaucoma Detection Integrating Deep Learning and Image Processing Techniques into a Hybrid Model for Glaucoma Detection"; Internal External Thesis Examiner, 14 April 2021.

Research Papers In Refereed Journals

1. Stell WK. (1965) Correlation of retinal cytoarchitecture and ultrastructure in Golgi preparations. Anat. Rec. 153:389-398.
2. Stell WK. (1967) The structure and relationships of horizontal cells and photoreceptor-bipolar synaptic complexes in goldfish retina. Amer. J. Anat. 121:401-424.
3. Smith TG Jr, Stell WK, Brown JE. (1968) Conductance changes associated with receptor potentials in *Limulus* photoreceptors. Science 162:454-456.
4. Smith TG Jr, Stell WK, Brown JE, Freeman JA, Murray GC. (1968) A role for the sodium pump in photoreception in *Limulus*. Science 161:456-458.
5. Stell WK. (1972) Structure and morphologic relationships of rods and cones in the retina of the spiny dogfish, *Squalus*. Comp. Biochem. Physiol. 42(1A):141-145.
6. Stell WK, Witkovsky P. (1973) Retinal structure in the smooth dogfish, *Mustelus canis*: General description and light microscopy of giant ganglion cells. J. Comp. Neurol. 148:1-32.
7. Stell WK, Witkovsky P. (1973) Retinal structure in the smooth dogfish, *Mustelus canis*: Light microscopy of photoreceptor and horizontal cells. J. Comp. Neurol. 148:33-46.
8. Witkovsky P, Stell WK. (1973) Retinal structure in the smooth dogfish, *Mustelus canis*: Light microscopy of bipolar cells. J. Comp. Neurol. 148:47-60.
9. Witkovsky P, Stell WK. (1973) Retinal structure in the smooth dogfish, *Mustelus canis*: Electron microscopy of serially sectioned bipolar synaptic terminals. J. Comp. Neurol. 150:147-167.
10. Stell WK, Lightfoot DO. (1975) Color-specific interconnections of cones and horizontal cells in the retina of the goldfish. J. Comp. Neurol. 159:473-502.
11. Stell WK. (1975) Horizontal cell axons and axon terminals in goldfish retina. J. Comp. Neurol. 159:503-520.

12. Stell WK, Lightfoot DO, Wheeler TG, Leeper HF. (1975) Goldfish retina: Functional polarization of cone horizontal cell dendrites and synapses. Science 190:989-990.
13. Stell WK, Harosi FI. (1976) Cone structure and visual pigment content in the retina of the goldfish. Vision Res. 16:647-657.
14. Stell WK. (1976) Functional polarization of horizontal cell dendrites in goldfish retina. Investigative Ophthalmol. 15:895-908.
15. Stell WK, Ishida AT, Lightfoot DO. (1977) Structural basis for ON- and OFF-center responses in retinal bipolar cells. Science 198:1269-1271.
16. Marc RE, Stell WK, Bok D, Lam DMK. (1978) GABA-ergic pathways in the goldfish retina. J. Comp. Neurol. 182:221-246.
17. Stell WK. (1979) Inputs to bipolar cell dendrites in goldfish retina. Sensory Processes 2:339-349.
18. Yamada T, Marshak D, Morley J, Hershman J, Walsh J, Basinger S, Stell WK. (1980) Somatostatin-like immunoreactivity in the retina. Proc. Nat. Acad. Sci. USA 77:1691-1695.
19. Ishida AT, Stell, WK, Lightfoot DO. (1980) Rod and cone inputs to bipolar cells in goldfish retina. J. Comp. Neurol. 191:315-335.
20. Stell WK, Marshak D, Yamada T, Brecha N, Karten H. (1980) Peptides are in the eye of the beholder. Trends in Neuroscience, 292-295.
21. Djamgoz MBA, Stell WK, Chin C-A, Lam DMK. (1981) An opiate system in the goldfish retina. Nature (Lond.) 292:620-623.
22. Kretz R, Ishida AT, Stell WK. (1982) Ratfish retina. Intracellular recordings and HRP injections in an isolated, superfused all-rod retina. Vision Res. 22:857-861.
23. Stell WK, Walker SE, Chohan KS, Ball AK. (1984) The goldfish nervus terminalis: An LHRH- and FMRFamide-immunoreactive olfactoretinal pathway. Proc. Nat. Acad. Sci. USA 81:940-944.
24. Weiss S, Goldberg J, Chohan KS, Stell WK, Drummond GI, Lukowiak K. (1984) Evidence for FMRFamide as a neurotransmitter in the gill of *Aplysia californica*. J. Neurosci. 4:1994-2000.
25. Tumosa N, Eckenstein F, Stell WK. (1984) Immunocytochemical localization of putatively cholinergic neurons in goldfish retina. Neurosci. Lett. 48:255-259.
26. Marshak DW, Yamada T, Stell WK. (1984) Synaptic contacts of somatostatin-immunoreactive amacrine cells in goldfish retina. J. Comp. Neurol. 225:44-52.
27. Djamgoz MBA, Stell WK. (1984) Tetrodotoxin does not block the axonal transmission of S-potentials in goldfish retina. Neurosci. Lett. 49:233-238.
28. Kock J-H, Stell WK. (1985) Formation of new rod photoreceptor synapses onto differentiated bipolar cells in goldfish retina. Anat. Rec. 211:69-74.
29. Murphy AD, Lukowiak K, Stell WK. (1985) Peptidergic modulation of patterned motor activity in identified neurons of *Helisoma*. Proc. Natl. Acad. Sci. USA, 82:7140-7143.
30. Mackie GO, Singla L, Stell WK. (1985) Distribution of nerve elements showing FMRFamide-like immunoreactivity in hydromedusae. Acta Zool. 66:199-210.
31. Tumosa N, Stell WK. (1986) Choline acetyltransferase-immunoreactivity suggests that ganglion cells in the goldfish retina are not cholinergic. Brain Research, 244:267-275.

32. Tumosa N, Stell WK, Johnson CD, Epstein ML. (1986) Putative cholinergic interneurons in the optic tectum of goldfish. Brain Research, 370:365-369.
33. Walker SE, Stell WK. (1986) Gonadotropin-releasing hormone (GnRF), molluscan cardioexcitatory peptide (FMRFamide), enkephalin, and related neuropeptides affect goldfish retinal ganglion cell activity. Brain Research, 384:365-369.
34. Muske LE, Dockray GJ, Chohan KS, Stell WK. (1987) Segregation of FMRFamide-immunoreactive efferent fibers and NPY-immunoreactive amacrine cells in goldfish retina. Cell Tiss. Res. 247:299-307.
35. Sakanaka M, McMaster D, Chohan K, Shibasaki T, Stell WK, Lederis K. (1987) Urotensin I - like immunoreactivity in amacrine cells of the goldfish retina. Neurosci. Lett. 76:96-100.
36. Harrison AC, Becker WJ, Stell WK. (1987) Colour vision abnormalities in multiple sclerosis. Can. J. Neurol. Sci., 14:279-285.
37. Uchiyama H, Reh TA, Stell WK. (1988) Immunocytochemical and morphological evidence for a retinopetal projection in anuran amphibians. J. Comp. Neurol. 274:48-59.
38. Ohtsuka T, Kawamata K, Stell WK. (1989) Immunocytochemical studies of centrifugal fibers in the goldfish retina. Neurosci. Res. 10:S141-S150.
39. Stell WK, Chaminade M, Metters KM, Rougeot C, Dray F, Rossier J. (1990) Detection of synenkephalin, the amino-terminal portion of proenkephalin, by antisera directed against its carboxyl terminus. J. Neurochem. 54:434-443.
40. Kawamata K, Ohtsuka T, Stell WK. (1990) Electron microscopic study of immunocytochemically labeled centrifugal fibers in the goldfish retina. J. Comp. Neurol. 293:655-664.
41. Mortimer ST, Hanley DA, Stell WK. (1990) The immunohistochemical identification of calcitonin gene-related peptide and substance P-containing nerves within the bovine parathyroid gland. Cell and Tissue Res. 261:339-345.
42. Negishi K, Stell WK, Takasaki Y. (1990) Early histogenesis of the teleostean retina: Studies using a novel immunochemical marker, proliferating cell nuclear antigen (PCNA/cyclin). Devel. Brain Res. 55:121-125
43. Negishi K, Teranishi T, Karkhanis A, Stell WK. (1990) Emergence and development of immunoreactive cells in teleostean retinas during the perinatalperiod. Devel. Brain Res. 55:127-137.
44. Negishi K, Stell WK, Teranishi T, Karkhanis A, Owusu-Yaw V, Takasaki Y. (1991) Induction of proliferating cell nuclear antigen (PCNA)-immunoreactive cells in goldfish retina following intravitreal injection with 6-hydroxydopamine. Cellular and Molecular Neurobiology, 11:639-658.
45. Luo D, Stell WK, Cupo A. (1991) Synthesis and post-translational processing of proenkephalin in light- and dark-adapted chicken retinas. Neurochemistry International, 19:483-494.
46. Owusu-Yaw V, Kyle AL, Stell WK. (1992) Effects of lesions of the optic nerve, optic tectum and nervus terminalis on rod precursor proliferation in the goldfish retina. Brain Research, 576:220-230.
47. Lovejoy DA, Stell WK, Sherwood NM. (1992) Partial characterization of four forms of immunoreactive gonadotropin-releasing hormone in the brain and terminal nerve

of the spiny dogfish (Elasmobranchii; Squalus acanthias). Regulatory Peptides, 37:39-48.
48. Yamaguchi K, Stell WK (1992) [Immunochemical detection of the proliferating cell nuclear antigen (PCNA/cyclin) in ocular tissues]. [Japanese] Nippon Ganka Gakkai Zasshi - Acta Societatis Ophthalmologicae Japonicae. 96:954-958.
49. Rohrer B, Spira A, Stell WK. (1993) Apomorphine blocks form-deprivation myopia in chickens by a dopamine D2-receptor mechanism acting in retina or pigment epithelium. Visual Neuroscience, 10:447-453.
50. Wagner H-J, Luo B-G, Stell W K, Ariano MA, Sibley DR. (1993) Localization of D2 dopamine receptors in vertebrate retinae with anti-peptide antibodies. Journal of Comparative Neurology, 331:469-481.
51. Rohrer B, Stell WK. (1994) Basic fibroblast growth factor and transforming growth factor-beta (TGF-β) act as stop and go signals to modulate postnatal ocular growth in the chick. Experimental Eye Research, 58: 553-562.
52. Yamaguchi K, Stell WK (1994) Quantitative analyses by radioimmunoassay of proliferating cell nuclear antigen (PCNA/cyclin) in ocular tissues. Japanese Journal of Ophthalmology. 38:24-29.
53. Seltner RL, Stell WK. (1995) The effect of vasoactive intestinal peptide on development of form deprivation myopia in the chick: A pharmacological and immunocytochemical study. Vision Research 58: 1265-1270.
54. Rohrer B, Iuvone PM, Stell WK. (1995) Stimulation of dopaminergic cells by stroboscopic illumination or fibroblast growth factor (bFGF, FGF-2): Possible roles in the prevention of form-deprivation myopia in the chick. Brain Research, 686: 169-181.
55. Rohrer B, Stell WK. (1995) Localization of putative dopamine D2-like receptors in the chick retina, using in situ hybridization and immunocytochemistry. Brain Research 695: 110-116.
56. Schultz K, Stell WK. (1996) Immunocytochemical localization of the high-affinity glutamate transporter, EAAC1, in the retina of representative vertebrate species. Neuroscience Letters, 211: 191-194.
57. Kyle AL, Stell WK, Luo B-G, Magnus TH. (1995) Substance P, F8Famide and A18Famide immunoreactivity in the nervus terminalis of the goldfish, Carassius auratus. Cell and Tissue Research, 280: 605-615.
58. Fischer AJ, Reisch HM, Kyle AL, Stell WK. (1996) Characterization of the Rfamide-like neuropeptides in the nervus terminalis of the goldfish (*Carassius auratus*). Regulatory Peptides, 62: 73-87.
59. Fischer AJ, Stell WK. (1996) The release of RFamide-like peptides from nervus terminalis retinal efferents is light-modulated and is mediated by neurons intrinsic to the retina. Neuroscience 77:585-597.
60. Seltner RLP, Stell WK. (1996) Endogenous opiates in the chick retina and their role in form deprivation myopia. Visual Neuroscience 14:801-809.
61. Rohrer B, Tao J, Negishi K, Stell WK. (1996) Basic fibroblast growth factor (FGF-2) its high- and low-affinity receptors, and their relationship to form-deprivation myopia in the chick. Neuroscience, 79:775-787.
62. Schultz K, Goldman DJ, Ohtsuka T, Hirano J, Stell WK. (1996) Identification and localization of an immunoreactive AMPA-receptor subunit (GluR4) with respect to

identified photoreceptor synapses in the outer plexiform layer of goldfish retina. Journal of Neurocytology, 26:651-666.
63. Fischer AJ, Seltner RLP, Stell WK. (1996) NMDA-induced excitotoxicity causes myopia in post-hatch chicks. Canad. J. Ophthal. 32:373-377.
64. Fischer A, McKinnon LA, Nathanson NM, Stell WK (1998) Identification and localization of muscarinic acetylcholine receptors in the ocular tissues of the chick. Journal of Comparative Neurology, 392:273-284.
65. Fischer AJ, Seltner RLP, Poon J, Stell WK (1998) Immunocytochemical characterization of quisqualic acid- and NMDA-induced excitotoxicity in the retina of chicks. Journal of Comparative Neurology, 393:1-15.
66. Fischer AJ, Miethke P, Morgan IG, Stell WK. (1998) Cholinergic amacrine cells are not required for the progression and atropine-mediated suppression of form-deprivation myopia. Brain Research, 794:48-60.
67. Fischer AJ, Seltner RLP, Stell WK. (1998) Opiate and N-methyl-D-aspartate receptors in form-deprivation myopia. Visual Neuroscience, 15:1089-1096.
68. Fischer AJ, Morgan IG, Stell WK (1999) Colchicine causes excessive ocular growth and myopia in chicks. Vision Research, 39:685-697.
69. Fischer AJ, Stell WK (1999) Nitric oxide synthase-containing cells in the retina, pigmented epithelium, and choroid of the chick eye. Journal of Comparative Neurology, 405:1-14.
70. Fischer AJ, McGuire J, Schaeffel F, Stell WK (1999) Light- and focus-dependent expression of the transcription factor ZENK in the chick retina. Nature Neuroscience, 2:706-712 [accompanied by News & Views: Narasimhan, K, "Signaling myopia", Nature Neurosci., 2(8):691; simultaneous News & Views in August, 1999, Nature Medicine: Wildsoet C & Wong ROL, "A far-sighted view of myopia", Nature Med. 5(8):879-880].
71. Fischer, AJ, Wallman J, Mertz JR, Stell WK. (1999) Localization of retinoid binding proteins, retinoid receptors, and retinaldehyde dehydrogenase in the chick eye. Journal of Neurocytology, 28:597-609
72. Luft WA, Ming Y, Stell WK. (2003) Variable effects of previously untested muscarinic receptor antagonists on experimental myopia. Investigative Ophthalmology and Visual Science, 44:1330-1338.
73. Zhong X, Ge J, Smith EL 3rd & Stell WK (2004) Image defocus modulates activity of bipolar and amacrine cells in macaque retina. Investigative Ophthalmology and Visual Science, 45:2065-2074.
74. Luft WA, Iuvone PM & Stell WK (2004) Spatial, temporal, and intensive determinants of dopamine release in the chick retina. Visual Neuroscience, 21:627-635.
75. Mansergh F, Orton NC, Vessey JP, Lalonde MR, Stell WK, Tremblay F, Barnes S, Rancourt DE, Bech-Hansen NT (2005) Mutation of the calcium channel gene *Cacna1f* disrupts calcium signaling, synaptic transmission and cellular organization in mouse retina. Human Molecular Genetics, 14:1335-1346.
76. Vessey KA, Lencses KA, Rushforth D, Hruby VJ & Stell WK (2005) Glucagon receptor agonists and antagonists affect the growth of the chick eye: A role for glucagonergic regulation of emmetropization? Investigative Ophthalmology and Visual Science, 46:3932-3942.

77. Vessey KA, Rushforth D & Stell WK (2005) Glucagon- and secretin-related peptides differentially alter ocular growth and the development of form-deprivation myopia in chicks. Investigative Ophthalmology and Visual Science, 46:3922-3931.
78. Uchiyama H & Stell WK (2005) Association amacrine cells of Ramon y Cajál: Rediscovery and reinterpretation. Review. Visual Neuroscience, 22:881-891.
79. Witkovsky P, Stell W & Ishida A (2006) Circuits and properties of signal transmission in the retina. Homage to contributions of the late Dr. K-I Naka. Review. Journal of Neurophysiology, 96:509-511.
80. Fischer AJ, Stanke JJ, Aloisio G, Hoy H & Stell WK (2007) Heterogeneity of horizontal cells in the chicken retina. Journal of Comparative Neurology, 500:1154-1171. [IF=3.74]
81. Raven MA, Orton NC, Nassar H, Williams GA, Stell WK, Jacobs GH, Bech-Hansen NT & Reese BE (2008) Early afferent signaling in the outer plexiform layer regulates development of horizontal cell morphology. Journal of Comparative Neurology, 506:745–758. [IF=3.74]
82. Gaillard F, Bonfield S, Gilmour GS, Kuny S, Mema SC, Martin BT, Smale L, Crowder N, Stell WK & Sauvé Y (2008) Retinal anatomy and visual performance in a diurnal cone-rich laboratory rodent, the Nile grass rat (*Arvicanthis niloticus*). Journal of Comparative Neurology, 510:525–538. [IF=3.74]
83. Doering CJ, Rehak R, Bonfield S, Peloquin JB, Stell WK, Mema SC, Sauvé Y & McRory JE (2008) Modified $Ca_V1.4$ expression in the *Cacna1f*^{nob2} mouse due to alternative splicing of an ETn inserted in exon 2. PLoS ONE, 3(7): e2538. Published online 2008 July 2. doi: 10.1371/journal.pone.0002538. [IF=4.35]
84. Gilmour GS, Gaillard F, Watson J, Kuny S, Mema SC, Bonfield S, Stell WK & Sauvé Y (2008) The electroretinogram (ERG) of a diurnal cone-rich laboratory rodent, the Nile grass rat (*Arvicanthis niloticus*). Vision Research, 48:2723-2731.
85. Lodha N, Bonfield S, Orton NC, Doering CJ, McRory JE, Mema SC, Rehak R, Sauvé Y, Tobias R, Stell WK & Bech-Hansen NT (2010) Congenital stationary night blindness in mice - a tale of two *Cacna1f* mutants. *Retinal Degenerative Diseases: Laboratory and Therapeutic Investigations*. (Eds: Anderson RE, LaVail MM, Hollyfield J.) Advances in Experimental Medicine and Biology, 664:549-558. [IF=1.38]
86. Sato M, Ohtsuka T & **Stell WK** (2011) Endogenous nitric oxide enhances the light-response of cones during light-adaptation in the rat retina. Vision Research, 51:131-137. [IF=2.41]
87. Tarutta E, Chua WH, Young T, Goldschmidt E, Saw SM, Rose KA, Smith E 3rd, Mutti DO, Ashby R, Stone RA, Wildsoet C, Howland HC, Fischer AJ, **Stell WK**, Reichenbach A, Frost M, Gentle A, Zhu X, Summers-Rada J, Barathi V, Jiang L, McFadden S, Guggenheim JA, Hammond C, Schippert R, To CH, Gwiazda J, Marcos S, Collins M, Charman WN, Artal P, Tabernero J, Atchison DA, Troilo D, Norton TT, Wallman J (2011) Myopia: Why Study the Mechanisms of Myopia? Novel Approaches to Risk Factors Signalling Eye Growth- How Could Basic Biology Be Translated into Clinical Insights? Where Are Genetic and Proteomic Approaches Leading? How Does Visual Function Contribute to and Interact with Ametropia? Does Eye Shape Matter? Why Ametropia at All? Optometry and Vis Sci. 2011

88(3):404-447. [IF=2.11] Online: http://journals.lww.com/optvissci/Fulltext/2011/03000/Myopia__Why_Study_the_Mechanisms_of_Myopia__Novel.10.aspx
88. Cantrup R, Dixit R, Palmesino E, Bonfield S, Shaker T, Tachibana N, Zinyk D, Dalesman S, Yamakawa K, **Stell WK**, Wong RO, Reese BE, Kania A, Sauvé Y & Schuurmans C (2012) Cell-type-specific roles for PTEN in establishing a functional retinal architecture. PLoS ONE 7(3): e32795. doi:10.1371/journal.pone.0032795. [IF=3.73]
89. Iribarren R, Bonthoux FF, Pförtner T, Chiaradia P & **Stell WK** (2012) Corneal power is correlated with anterior chamber diameter. Investigative Ophthalmology & Visual Science, 53(7):3788-3791. [IF=3.44]
90. Li S, Wu J, Ding H, Liao A, He H, **Stell WK** & Zhong X (2012) Flicker downregulates the content of crystallin proteins in form-deprived C57BL/6 mouse retina. Experimental Eye Research, 101:1-8. [IF=3.03]
91. McBrien NA*, **Stell WK*** & Carr B*. (2013) Point-counterpoint. How does atropine exert its anti-myopia effects? Ophthalmic Physiol Opt, 33:373–378; doi: 10.1111/opo.12052 (*equal share of first-authorship) [IF=2.66]
92. Shi Q, **Stell WK** (2013) *Die Fledermaus*: Regarding optokinetic contrast sensitivity and light-adaptation, chicks are mice with wings. PLoS ONE 8(9): e75375. doi:10.1371/journal.pone.0075375 [11 pp.] [IF=3.53]
93. Muguruma K, **Stell WK** & Yamamoto N (2014) A morphological classification of retinal ganglion cells in the Japanese catshark *Scyliorhinus torazame*. Brain Behavior and Evolution, 33(3):373-378. doi: 10.1111/opo.12052. PMID: 24642951. [IF=4.29]
94. Jiang L, Long K, Schaeffel F, Zhou X, Zheng Y, Ying H, Lu F, **Stell WK**, Qu J (2014) Effects of dopaminergic agents on progression of naturally occurring myopia In albino guinea pigs (*Cavia porcellus*). Investigative Ophthalmology & Visual Science, 55(11):7508-7519. doi: 10.1167/iovs.14-14294. (Co-Corresponding Author; did extensive data analysis and rewriting); http://www.iovs.org/content/55/11/7508.long [IF=3.66]
95. Wang Y, Ding H, **Stell WK**, Liu L, Li S , Liu H, Zhong X (2015) Exposure to sunlight reduces the risk of myopia in Rhesus monkeys. PLoS ONE, 10(6): e0127863. doi:10.1371/journal.pone.0127863. [IF=3.53]
96. Klein RR, Menon BJ, Rabi D, **Stell WK**, Hill M (2016) Air, Rail and Road: Medical Guidelines for Employees With a History of Cerebrovascular Disease. International Journal of Stroke, 11(8):860-867, Oct. 2016; Published online July 20, 2016; doi: 10.1177/1747493016660101. [IF=3.04]
97. Carr B, **Stell WK** (2016) Nitric oxide (NO) mediates the inhibition of form-deprivation myopia by atropine in chicks. Scientific Reports, 2016 Dec 5; 6(1):9. doi: 10.1038/s41598-016-0002-7. PMID: 28442706 [IF=5.58]
98. **Stell WK** (2016) Understanding and Treating Myopia: Yesterday, Today, and Tomorrow. Invited Guest Editorial (refereed) for Special Issue on International Myopia Conference, IMC 2015. Optometry and Vision Science, September, 93(9):1020-1021. doi: 1040-5488/16/9309-1020/0. [IF=1.44]

99. Carr BJ, **Stell WK** (2017) The Science Behind Myopia. WebVision (refereed), Posted 22 December 2017: http://webvision.med.utah.edu/book/part-xvii-refractive-errors/the-science-behind-myopia-by-brittany-j-carr-and-william-k-stell/
100. Waldner DM, Giraldo Sierra NC, Bonfield S, Nguyen L, Dimopoulos IS, Sauvé Y, **Stell WK***, Bech-Hansen NT* (2017) Cone dystrophy and ectopic synaptogenesis in a *Cacna1f* loss of function model of congenital stationary night blindness (CSNB2A). Channels, https://doi.org/10.1080/19336950.2017.1401688 [IF=2.54]
101. Waldner D, Bech-Hansen NT, **Stell WK** (2018) Channeling Vision: $Ca_V1.4$, a critical link in retinal signal transmission. Review. BioMed Research International; Volume 2018, Article ID 7272630, 14 pages; https://doi.org/10.1155/2018/7272630 [IF=2.48]
102. Carr B, Mihara K, Ramachandran R, Saifeddine M, Nathanson N, **Stell W**, Hollenberg M (2018) Muscarinic Receptor antagonists block activation of Alpha2A-Adrenoceptors at myopia-inhibiting concentrations. Investigative Ophthalmology & Visual Science, 59:2778–2791. https://doi.org/10.1167/iovs.17-22562 [IF=3.30]
103. Li SM, Iribarren R, Kang MT, Liu L, Wei SF, **Stell WK**, Martin G, Wang N (2018) Intraocular pressure and myopia progression in Chinese children: The Anyang Childhood Eye Study. Brit J Ophthal, Epub ahead of print: DOI: 10.1136/bjophthalmol-2017-311831 [IF=3.81]
104. Kang BS, Wang L-K, Zheng Y-P, Guggenheim JA, **Stell WK**, Kee C-S (2018) High myopia induced by form deprivation alters corneal biomechanical properties in chicks. PLoS ONE 13(11): e0207189. https://doi.org/10.1371/journal.pone.0207189
105. Carr BJ, Nguyen CT, **Stell WK** (2019) $Alpha_2$-adrenoceptor agonists inhibit form-deprivation myopia in the chick. [Invited Paper] Clinical & Experimental Optometry, 102(4): 418–425. DOI: 10.1111/cxo.12871. http://dx.doi.org/10.1111/cxo.12871
106. Waldner DM, Visser F, Fischer AJ, Bech-Hansen NT, **Stell WK**, (2019) Avian adeno-associated viral transduction of the post-embryonic chicken retina. Translational Vision Science & Technology (TVST), 8(4):1; *with cover photo*! doi: 10.1167/tvst.8.4.1 . eCollection 2019 Jul.
107. Popa A-V, Kee C-S, **Stell WK** (2020) Retinal control of lens-induced astigmatism in chicks. Experimental Eye Research, 194, https://doi.org/10.1016/j.exer.2020.108000; published online 09 April 2020. Share Link: https://authors.elsevier.com/a/1atFv3Imr1UnI.
108. Cheng N, Pagtalunan EB, Abushaibah A, Naidu J, **Stell WK**, Rho JM, Sauvé Y, (2020) Atypical visual processing in a mouse model of autism. Scientific Reports, SREP-19-24849, Jul 24;10(1):12390; doi: 10.1038/s41598-020-68589-9.
109. Shi Q, Teves M, Lillywhite A, Pagtalunan EB, **Stell WK** (2020) Light adaptation in the chick retina: dopamine, nitric oxide, and gap-junction coupling modulate spatiotemporal contrast sensitivity. Experimental Eye Research, 195: 108026; Jun;195:108026; doi: 10.1016/j.exer.2020.108026. Epub 2020 Apr 1. Share link: https://authors.elsevier.com/a/1b7%7EM3Imr1VGL
110. Waldner DM, Tremblay F, Bech-Hansen NT, **Stell WK**. (2020) Ectopic expression of *Cacna1f* rescues vision and retinal morphology in a mouse model of congenital stationary night blindness 2A. Trans Vis Sci Tech., 9(11):19, https://doi.org/10.1167/tvst.9.11.19

111. **Stell WK** (2021) A new angle on myopia therapeutics: Not just a fishing expedition. Invited Commentary. EBioMedicine, Volume 65, March 2021, 103280. https://authors.elsevier.com/sd/article/S2352396421000736
112. Rozema JS, Boulet C, Cohen Y, **Stell WK**, Iribarren L, van Rens GHMB, Iribarren R. Reappraisal of the historical myopia epidemic in native Arctic communities. Ophthal Physiol Optics, published online 17 September 2021: http://doi.org/10.1111/opo.12879
113. Basirat M, **Stell WK**, Fernandez NO Jr (2021) The prevalence of myopia among adolescent students in Cebu City, Philippines. In preparation.
114. Teves M, Odermatt N, Shah V, Shi Q, Eng D, Waldner D, Carr B & **Stell WK**. (2021) A role for cell-cell coupling via Cx35/36-containing gap junctions in light-adaptation and control of eye growth in the chick. Manuscript in preparation.
115. Ghodsi L, Nguyen C, **Stell WK** (2021) Short-wavelength light inhibits, but long-wavelength promotes, form deprivation myopia in chickens, by local NO-mediated signaling within the retina. Manuscript in preparation.
116. Zhong X, Man L, Tao J, Smith EL 3rd, Ge J & **Stell WK** (2021) Selective activation of a subpopulation of GABAergic amacrine cells in macaque retina by focused and defocused images. Investigative Ophthalmology and Visual Science, in preparation.
117. Waldner DM, **Stell WK**, Bech-Hansen NT, Visser F (2021) Characterization of Voltage-Gated Calcium Channel Expression in the Chicken Retina. Thesis chapter, under revision for publication.

Other Papers in Preparation

LeBaron D, DeVetten G, Tse F, Ayotte AL, Douglas R, Schmid KL, Rushforth D, Vessey KA & **Stell WK**. Spatial-frequency dependency of myopia-prevention by square- and sine-wave gratings in chicks. Vision Research, to be submitted.

Beloukhina N, Seto A, Ayotte AL, Vessey KL & **Stell WK.** Glucagon prevents experimental myopia in the chick in the absence of most inner-retinal function: Action via the retinal pigment epithelium? In Preparation.

Zakrzewski H, Southwestern University College of Optometry Myopia Prevalence Research Study Group, Berzins S, Bulloch AGM, **Stell WK**, Fernandez NO Jr (2016) Prevalence of myopia in school children in rural and urban regions of the Island of Cebu, Philippines. Manuscript in preparation,

Publications Sponsored But Not Co-Authored

Leeper HF. (1978) Horizontal cells of the turtle retina. I. Light microscopy of Golgi preparations. J. Comp. Neurol. 182:777-794.

Leeper HF. (1978) Horizontal cells of the turtle retina. II. Analysis of interconnections between photoreceptor cells and horizontal cells by light microscopy. J. Comp. Neurol. 182:795-810.

Weiler R, Ball AK. (1984) Co-localization of neurotensin-like immunoreactivity and (3H)-glycine uptake system in sustained amacrine cells of the turtle retina. Nature (Lond.), 311:759-761.

Weiler R. (1985) Mesencephalic pathway to the retina exhibits enkephalin-like immunoreactivity. Neurosci. Lett., 55:11-16.

Davis RE, Kyle A, Klinger PD. (1988) Nervus terminalis innervation of the goldfish retina and behavioral visual sensitivity. Neurosci. Lett., 91:126-130.
Uchiyama H. (1989) Centrifugal pathways to the retina: Influence of the optic tectum. Visual Neurosci, 3:183-206.
Uchiyama H. (1990) Immunohistochemical subpopulations of retinopetal neurons in the nucleus olfactoretinalis in a teleost, the whitespotted greenling (*Hexagrammos stelleri*). J. Comp. Neurol., 293:54-62.

Dissertations, Book Chapters, Symposium Presentations and Monographs

1. Stell WK. (1966) The structure of horizontal cells and synaptic relations in the outer plexiform layer of the goldfish retina, as revealed by the Golgi method and electron microscopy. Ph.D. Dissertation in Anatomy, The University of Chicago.
2. Stell WK. (1972) The morphological organization of the vertebrate retina. In: The Handbook of Sensory Physiology, VII/2B. Physiology of Photoreceptor Organs (ed. M.G.F. Fuortes). Springer-Verlag, Berlin, Heidelberg and New York, Ch. 3, pp. 111-213.
3. Stell WK. (1975) Structural studies of functional pathways in goldfish retina. In: Vision in Fishes. New Approaches in Research (M. Ali, Editor). Plenum, New York. p.81-90.
4. Stell WK, Detwiler PB, Wagner HG, Wolbarsht ML. (1975) Giant retinal ganglion cells in dogfish (Mustelus): Electrophysiology of single ON-center units. In: Vision in Fishes. New Approaches in Research (M.A. Ali, Editor). Plenum, New York. p.99-112.
5. Stell WK, Lightfoot DO. (1979) Computer-aided reconstruction and analysis of goldfish rod synapses. (Japanese transl. by A. Kaneko). Seitai-no-Kagaku 301:173-177.
6. Stell WK. (1980) Synapses of retinal photoreceptors: A world of colour, a wealth of connections. Symposium on the Anatomy of Colour Vision (Colour Vision Deficiencies V). Adam Hilger Co., London, Chapter 1, pp. 1-12.
7. Stell WK, Kretz R, Lightfoot DO. (1982) Horizontal cell connectivity in goldfish. In: The S-Potential (B. Drujan and M. Laufer, eds.), Alan R. Liss, New York, pp. 51-75.
8. Stell WK, Kock H. (1984) Structure, development, and visual acuity in the goldfish retina. In: Molecular and Cellular Basis of Visual Acuity. Seventh Symposium on Ocular and Visual Development. (J. Sheffield and R. Hilfer, eds.), Springer-Verlag, pp. 79-105.
9. Stell WK. (1984) Putative peptide transmitters, amacrine cell diversity, and function in the inner plexiform layer. Symposium on Synaptic Transmission in the Retina. Sixth International Congress of Eye Research, Alicante, Spain. Elsevier, New York, pp. 171-187.
10. Stell WK, Ball AK, Chohan KS, Djamgoz MBA, Downing JEG, Kyle AL, Muske LE, Walker SE. (1986) Colocalization of neuroactive substances, and its functional significance, in the cyprinid fish retina. In: Retinal Signal Systems, Degenerations and Transplants. (E. Agardh and B. Ehinger, eds.), Elsevier, Amsterdam, pp. 73-87.

11. Stell WK, Walker SE, Ball AK. (1988) Functional-anatomical studies of the terminal nerve projection to the retina in teleosts. In: The Terminal Nerve (M. Schwanzel-Fukuda and L. Demski, eds.), Annals N.Y. Acad. Sci., New York, 519:80-96.
12. Chaminade M, Stell WK, Rossier J. (1989) Detection of synenkephalin by antisera directed against its carboxyl terminus. In: Second Forum on Neuropeptides (Aubry, A., Marraud, M., and Vitoux, B., eds.). Colloque INSERM/John Libbey, Eurotext Ltd. 174:121-124.
13. Ball AK, Stell WK, Tutton DA. (1989) Efferent projections to the goldfish retina. In: Neurobiology of the Inner Retina, NATO-ASI Series, Vol. H31 (Weiler, R., and Osborne, N.N. eds.). Springer-Verlag, Berlin & Heidelberg, pp. 103-116.
14. Stell WK, Barton L, Ohtsuka T, Hirano J. (1994) Chromatic and neurochemical correlates of synapses between cones and horizontal cells. First Great Basin Visual Science Symposium, University of Utah Press, 1:41-48. Invited Lecture.
15. Cantrup R, Bonfield S, Stell W, Sauvé Y & Schuurmans C (2010) PTEN is required to establish neuronal connectivity in the mouse visual system. EMBL Symposium: Structure and function of neural circuits. Sept. 5-8, 2010. Heidelberg, Germany.
16. Odermatt N*, Teves M*, Carr B, Shi Q & Stell WK (2016) Retinal Cell-Cell Coupling via Cx35/36-Containing Gap Junctions: Key Role in Visual Processing and Form-Deprivation Myopia in Chick. University of Calgary Ophthalmology and Visual Sciences Research Day, January 25, 2016. Selected for platform presentation by Ms. Teves. (*Award for Best Basic Science Presentation*). [*Equal First-Authors]
17. Carr B & Stell WK (2016) The possible role of alpha$_{\mathbf{2A}}$-adrenergic receptors in chick eye growth regulation. University of Calgary Ophthalmology and Visual Sciences Research Day, January 25, 2016. Selected for platform presentation by Ms. Carr.
18. Waldner DM, Visser F & Stell WK (2016) Avian Adeno-Associated Virus as a Genomic Tool for Manipulation of the Post-Embryonic Chick Retina. University of Calgary Ophthalmology and Visual Sciences Research Day, January 25, 2016. Selected for poster presentation by Mr. Waldner.
19. Ghodsi L & Stell WK (2016) The effects of long and short wavelength lighting on development of form-deprivation myopia in chickens. University of Calgary Ophthalmology and Visual Sciences Research Day, January 25, 2016. Selected for poster presentation by Ms. Ghodsi.
20. Nguyen C & Stell WK (2016) Protection from Myopia by novel blue-LED light therapy: A surrogate for sunlight. University of Calgary Ophthalmology and Visual Sciences Research Day, January 25, 2016. Selected for poster presentation by Ms. Nguyen.
21. Stell WK (2017) Regulation of Ocular Growth and Refractive Development: Another Manifestation of Retinal Circuit Functions. In: International Conference “Vision and Visions: Current Concepts and Future Challenges of Retinal Research” (Satellite Symposium to European Retinal Meeting 2017), October 2 to 3, 2017 Hanse-Wissenschaftskolleg, Delmenhorst, Germany. Invited platform presentation.
22. Carr BJ, **Stell WK** (2017) The Science Behind Myopia. WebVision (refereed). Posted 22 December 2017: http://webvision.med.utah.edu/book/part-xvii-refractive-errors/the-science-behind-myopia-by-brittany-j-carr-and-william-k-stell/

23. **Stell WK** (2019) How does atropine inhibit myopia development? Evidence from animal studies. ARVO Minisymposium, Unresolved Issues in Myopia. Invited Speaker.

Invited Lectures

1. Stell WK, Barton L, Ohtsuka T, Hirano J. (1994) Chromatic and neurochemical correlates of synapses between cones and horizontal cells. First Great Basin Visual Science Symposium, University of Utah Press, 1:41-48. Invited Lecture.
2. Stell WK. (2001). Translational regulation and maintenance of emmetropia; Molecular (antisense) intervention in ocular growth-control. Novartis Myopia Workshop, October 19, 2001, Basel Switzerland. Invited Lecture.
3. Zhong XW, Ge J, Tao J, Smith EL IIIrd & Stell WK (2002) Defocus and deprivation modulate expression of transcription factor Egr-1 in monkey retina. 9th International Conference on Myopia: Hong Kong and Guangzhou, 10-14 November, 2002. Invited Platform Presentation.
4. Stell WK (2003) Retinal aspects of signal cascades and control of eye growth. University of Houston College of Optometry 50th Anniversary Symposium. Invited Lecture.
5. Stell WK (2004) Vision Without a Brain: What the Chick's Retina Tells the Chick's Eye. Canadian Centre for Behavioural Neuroscience, University of Lethbridge, 19 April 2004, invited lecture.
6. Stell WK (2004) Vision Without a Brain: Visual Control of Eye Size by the Chick's Retina, Biology Department, University of Alberta, 30 November 2004, invited lecture.
7. Stell WK (2006) Vision Without a Brain: How the Retina Controls Eye Size and Refraction. Distinguished Lecturer, Oklahoma Center for Neuroscience, Oklahoma University Health Sciences Center, 03 March 2006. Invited Lecture.
8. Stell WK & Wyse JPH (2006) The Eye in Health and Disease. University of Calgary Mini Med School, 15 March 2006. Invited Lecture.
9. Stell WK (2006) Retinal Bases of Ocular Growth Control. ARVO Sunday Symposium: Developments in the Biochemistry and Cell Biology of Myopia, Ft. Lauderdale, FL, 30 April 2006, invited presentation.
10. Stell WK (2006) Control of Eye Growth and Prevention of Myopia by Retinal Circuitry. H. Talmadge Dobbs Lectureship in Ophthalmology, Emory Eye Center, Emory University School of Medicine, 08 May 2006, invited lecture.
11. Stell WK (2007) Retinal Signaling and the Pharmacological Control of Eye Growth and Myopia. Myopia Symposium, AOPT 8th Scientific Meeting, San Diego CA, 9-11 February 2007, invited participant.
12. Stell WK (2007) Spatiotemporal Stimulus Properties and Visual Control of Eye Growth in Chicks. Myopia Symposium, Asia-ARVO Meeting on Research in Vision and Ophthalmology, Singapore, 2-5 March 2007, invited participant.
13. Stell WK (2007) Retinal Signaling and the Pharmacological Control of Eye Growth and Myopia. Invited Lecture, Zhongshan Ophthalmic Center, Guangzhou P.R.C., 07 March 2007.

14. Stell WK (2007) Retinal Signaling and the Pharmacological Control of Eye Growth and Myopia. Invited Lecture, Xiamen Medical College, Xiamen P.R.C., 09 March 2007.
15. Stell WK (2007) Retinal Signaling and the Pharmacological Control of Eye Growth and Myopia. Invited Lecture, School of Optometry, Queensland University of Technology, Brisbane, Australia, 19 March 2007.
16. Stell WK (2007) Say "NO" To Myopia. Invited Lecture in Neuroscience 4630 course, University of Lethbridge, 13 September 2007.
17. Stell WK (2008) Say NO to Myopia. Invited Lecture, Vision Science Research Group, Toronto Western Hospital, 03 April 2008.
18. Stell WK (2008) Say NO to Myopia. Invited Lecture, Neuroscience Graduate Studies Program and the Department of Neuroscience, Ohio State University, 02 June 2008.
19. Stell WK (2008) Say NO to Myopia. Invited Lecture, ARC Centre of Excellence in Vision Science, Research School of Biological Sciences, Australian National University, Canberra, 23 July 2008.
20. Stell WK (2008) Retinal Glucagon and Myopia-Prevention in the Chick. Invited Lecture, Department of Psychology, University of Newcastle, Newcastle, NSW, Australia, 5 September 2008.
21. Stell WK (2008) Say NO to Myopia. Invited Lecture, School of Optometry and Vision Research Unit, University of Melbourne, Melbourne, VIC, Au., 23 October 2008.
22. Stell WK (2008) The Synaptic Ribbon: An Historical Thread. Ribbon Synapses, Ca^{2+} Channels, and Congenital Stationary Night Blindness. Invited Plenary Lecture, The Australian Ophthalmic and Visual Sciences Meeting, Australian National University, Canberra, 7 December 2008.
23. Stell WK (2009) Understanding and Treating Retinal Degenerative Diseases: Research in Canada. Invited Lecture, Department of Ophthalmology, The Third Affiliated Hospital, Sun Yat-sen (Zhongshan) University, Guangzhou, P.R. China, 6 February 2009.
24. Stell WK (2009) The Synaptic Ribbon: An Historical Thread. Invited Lecture, Department of Anatomy, The University of Hong Kong, 9 February 2009.
25. Stell WK (2009) Say "NO" to Myopia. Invited Lecture, School of Optometry, Hong Kong Polytechnic University, Hong Kong, 10 February 2009.
26. Stell WK (2009) Say "NO" to Myopia. Invited Lecture, Department of Information and Computer Science, Faculty of Engineering, Kagoshima University, Kagoshima, Kyushu, Japan, 12 February 2009.
27. Stell WK (2009) The Synaptic Ribbon: An Historical Thread. Ribbon Synapses, Calcium Channels, and Night-Blindness. Invited Lecture, Visual Physiology Group, Department of Physiology, University of Sydney, Sydney, NSW, Australia, 26 March 2009.
28. Stell WK & Morgan IG (2009) Vision(s) in Australia and Asia: New Concepts in Human Myopia. Academic Grand Rounds, Division of Ophthalmology, Department of Surgery, University of Calgary Faculty of Medicine, 01 May 2009.
29. Stell WK (2010) Ocular Growth and Refraction are Regulated by Amacrine Cells. Symposium on Biochemical and Molecular Control of Myopia. XIX Biennial

Meeting, International Society for Eye Research (ISER 2010), Montreal, Québec, Canada, July 18-23, 2010. Invited presentation #A-227-0006-00902.

30. Stell WK, Bonfield S, DeVetten G, LeBaron D, Shi Q, Tran S, Tse F & Schmid KL (2010) Retinal signaling in myopia and hyperopia: spatiotemporal tuning and amacrine cell circuits. Symposium 7: Retinal signalling in myopia and hyperopia: biochemistry and pharmacology. 13th International Myopia Conference (IMC 2010), Tübingen, Germany, July 26-29, 2010. Invited presentation; abstract published in Optometry and Vision Science.
31. Stell WK (2010) Say NO to Myopia. Invited Lecture, École d'Optométrie, Université de Montréal, 22 November 2010.
32. Stell WK (2010) Spatiotemporal Processing in the Retina: Roles in Retinal Function and Ocular Growth. Invited Lecture, Neuroinformatics Laboratory, RIKEN BSI, Wako-shi, Japan. 29 November 2010.
33. Stell WK (2011) Myopia: The Long and the Short of It. Invited Lecture, Cebu Doctors' University – College of Optometry, SWU College of Optometry and Cebu Optometrists' Association, Cebu City, Philippines, 08 February 2011
34. Stell WK (2011) Myopia: The Long and the Short of It. Invited Lecture, Zhongshan Ophthalmic Center, Sun Yat-Sen University, Guangzhou, Guangdong, PRC; 11 February 2011
35. Stell WK (2011) New Developments in Therapy for Retinal Degeneration. Ophthalmology Grand Rounds, University of Calgary; 20 May 2011
36. Stell, WK (2012) Say NO to Myopia. Invited seminar, Canadian Centre for Behavioural Neuroscience, University of Lethbridge. 04 October 2012.
37. Stell WK (2013) Myopia: The Long and Short of It. Invited Vision Sciences Research Seminar, Optometry, the University of Waterloo, 22 March 2013.
38. Stell WK (2013) Myopia: The Long And Short Of It. Inside Optics, Spring 2012. Conference & Trade Show, Woodbridge, ON (Toronto area). Invited Plenary Lecture, 01 April 2012.
39. Stell WK, Shi Q & Carr BJ (2013) Dopamine, Nitric Oxide, and Light-Adaptation: Roles in Spatiotemporal Vision and Myopia. Asia Pacific Conference on Vision (APCV) 2013, Suzhou, China. 06 July 2013. Platform presentation, 06 July 2013 (accepted 26 May 2013).
40. Stell, WK (2013) Say NO to Myopia. Invited seminar, Center for Ophthalmology and Optometry, Wenzhou Medical College, Wenzhou, PRC. 11 July 2013.
41. Stell WK & Shi Q (2013) "Opera, Anyone? – For Visual Adaptation, the Chick is a Mouse with Wings (*Die Fledermaus*)". Invited Lecture in Neuroscience 4630 course, University of Lethbridge, 14 November 2013.
42. Stell WK & Carr B (2014) "Myopia: Up Close and Personal". Invited Lecture in Neuroscience 4630 course, University of Lethbridge, 25 September 2014.
43. Stell WK (2014) Light-Adaptation, Spatiotemporal Processing, and Cell-Cell Coupling in Chick Retina. State Key Laboratory of Medical Neurobiology, Fudan University, Shanghai, PRC. November 25, 2014.
44. Stell WK (2014) Light Intensity and Myopia Prevention. Hainan Eye Hospital, Zhongshan Ophthalmic Center, Sun Yat-Sen University, Haikou, Hainan, PRC. December 08, 2014.

45. Stell WK (2014) Light-Adaptation, Spatiotemporal Processing, and Cell-Cell Coupling in Chick Retina. School of Optometry, Hong Kong Polytechnic University, December 10, 2014.
46. Stell WK & Waldner D (2015) The Synaptic Ribbon: An Historical Thread. Ribbon Synapses, Calcium Channels, and Night-Blindness. Invited Lecture in Neuroscience 4630 course, University of Lethbridge, 19 November 2015.
47. Stell WK (2016) Genes, Mutations, Patterns of Inheritance, and Developing Therapies for Heritable Retinal Dystrophies. Patient Information Night, Canadian National Institute for the Blind – Southern Alberta Chapter, Calgary. Lecture-Discussion. January 18, 2016.

~~xx~~. Stell, WK (2016) (1) Vertebrate Photoreceptors. (2) Neural Circuitry of the Retina. (3) Visual Contrast. (4) Visual Adaptation. Graduate course "PSE5891-Retinal Coding Strategies": Four separate lectures – Graduate Programs in Experimental Psychology and Neurosciences and Behavior of the University of São Paulo; by Invitation of Prof. Dr. Christina Joselevitch, Depto. de Psicologia Experimental, Instituto de Psicologia, Universidade de São Paulo. 22- 23 August 2016). [*Cancelled on account of illness*]

~~xx~~. Stell WK (2016) The World Myopia 'Epidemic': What is causing it, and what can we do about it? – Insights from animal studies using atropine and 'outdoor light'. Lecture by Invitation of Prof. Dr. Christina Joselevitch. XXXI Reunião Anual da FeSBE (Federação de Sociedades de Biologia Experimental – Federation of Experimental Biology Societies of Brazil), Foz de Iguaçu, Brazil. 29 August – 01 September 2016. [*Cancelled on account of illness*]

~~xx~~. Stell, WK (2016) What cell morphology tells us about cell physiology: lessons from the retina. Lecture by Invitation of Prof. Dr. Christina Joselevitch. XXXI Reunião Anual da FeSBE (Federação de Sociedades de Biologia Experimental – Federation of Experimental Biology Societies of Brazil), Foz do Iguaçu, Brazil. 29 August – 01 September 2016. [*Cancelled on account of illness*]

48. Cheng N, Naidu J, Stell W, Rho J (2017) Investigating visual function in a mouse model of autism. Ophthalmology and Visual Sciences Research Day, Calgary, 23 January 2017. Selected for oral presentation by Dr. Cheng.
49. Waldner D, Orton N, Bonfield S, Bech-Hansen N, Stell W (2017) Degeneration and ectopic synaptogenesis in a mouse knockout model of congenital stationary night blindness (CSNB2A). Ophthalmology and Visual Sciences Research Day, Calgary, 23 January 2017. Selected for oral presentation by Mr. Waldner.
50. Waldner D, Bech-Hansen N & Stell W (2016) Cone degeneration and ectopic synaptogenesis in a mouse knockout model of congenital stationary night blindness (CSNB2A). XVIIth International Symposium on Retinal Degeneration (RD 2016), Kyoto, Japan, September 19-24, 2016. Abstract #TA71, selected for poster presentation. http://rdmeeting.net/RD2016Program.pdf , Poster #97.
51. Nguyen C, Stell W (2017) Preventing myopia progression by novel blue-LED light therapy and the potential role of nitric oxide. Ophthalmology and Visual Sciences Research Day, Calgary, 23 January 2017. Selected for oral presentation by Ms. Nguyen, who received the award for Best Basic Science Presentation at this event.

52. Stell WK (2018) Myopia Prevention: Daylight, or Drugs? Invited Lecture. Vision China – Chinese Myopia Conference 2018, Beijing, PRC; 27 July 2018.
53. Stell WK (2018) Visual Control of Eye Growth: A Little-Recognized Function of the Retina. Invited Lecture, School of Ophthalmology and Optometry, Wenzhou Medical University, Wenzhou PRC; 30 July 2018.
54. Stell WK (2019) How does atropine inhibit myopia development? Evidence from animal studies. Invited Lecture. Vision China – Chinese Myopia Conference 2019, Qingdao, PRC; 28 July 2019.
55. Stell WK (2019) Myopia Prevention: Daylight, or Drugs? Invited Lecture. Hainan Ophthalmology Conference 2019, Haikou, PRC; 19 October 2019.
56. Albarracin R, Stell WK (2019) Recent Advances in Understanding and Treating Eye Diseases. Invited lecture by Dr. Albarracin, Southwestern University School of Optometry, Cebu City, Philippines. 11 October 2019.
57. Stell WK (2019) Ophthalmology: Post-Graduate Training in North America. Invited Lecture/Discussion. Hainan Eye Hospital, Zhongshan Ophthalmic Center, Sun Yat-sen University, Haikou, Hainan Province, China. 21 October 2019.
58. Stell WK, Albarracin R (2019) Recent Advances in Understanding and Treating Eye Diseases. Invited lecture by Dr. Stell. Hainan Eye Hospital, Zhongshan Ophthalmic Center, Sun Yat-sen University, Haikou, Hainan Province, China. 22 October 2019.
59. Stell WK (2020) We don't know where or how atropine acts; does it even matter? Invited Presentation, In: Indication and mechanism of low concentration in prevention and treatment of myopia. Special Interest Group (SIG), ARVO Conference, Baltimore, May 2020. Invited but ARVO meeting cancelled because of COVID-19.
60. Asghar SF, Stell WK. (2020) Atropine for myopia: Muscarinic and non-muscarinic effects in chick. ARVO Abstract #1135, selected for paper (platform) presentation. Narrated PPT presented in virtual meeting, 25 April 2020. https://learning.arvo.org/diweb/catalog/launch/media/sid/91010515

Authored/Co-Authored Presentations and Abstracts (*Published)

*Stell WK. (1964) Correlated light and electron microscope observations on Golgi preparations of goldfish retina. J. Cell Biol. 23:89A. (Fourth Meeting, American Society of Cell Biology, Cleveland, Ohio; November 11-13, 1964)

*Stell WK. (1965) Discussion: Dendritic contacts of horizontal cell in monkey retina. In: The Structure of the Eye, II Symposium, Wiesbaden, (J.W. Rohen, Ed.). Schattauer-Verlag, Stuttgart, pp. 27-28.

*Stell WK. (1965) Some ultrastructural characteristics of goldfish retinal cones. Amer. Zool. 5: Abstract 435.

*Smith TG Jr, Stell WK, Murray GC. (1969) Temperature-dependent processes in *Limulus* photoreceptors. The Physiologist 12:359.

*Stell WK, Ravitz MJ. (1970) The structure of neurons in the ventral photoreceptor organ of the horseshoe crab, *Limulus polyphemus*. J. Cell Biol. 47:202a.

*Stell WK, Wagner HG, Wolbarsht ML. (1970) Receptive field organizataion of ganglion cells in the retina of the smooth dogfish, *Mustelus canis*. Biol. Bull. 139:437.

*Witkovsky P, Stell WK. (1971) Gross morphology and synaptic relationships of bipolar cells in the retina of the smooth dogfish, Mustelus canis. Anat. Rec. 169:456.
*Stell WK, Detwiler PB, Wagner HG, Wolbarsht ML. (1971) Spatial organization and adaptational changes of ON-OFF-ganglion cells in *Mustelus* retina. Biol. Bull. 141:403.
*Nagy AR, Stell WK. (1977) Membrane structure of rod and cone synapses in goldfish retina. Anat. Rec. 187:663.
*Lightfoot DO, Stell WK, Shantz MJ, McCann GD. (1977) Computer-aided reconstruction of rod synapses in goldfish retina. Soc. Neurosci. Abstrs. 3:390.
*Graf SA, Stell WK, Sharma SC. (1979) Synaptogenesis of rods in goldfish. Invest. Ophthal. Vis. Sci. (Suppl.) 19:82.
*Lockhart M, Stell WK. (1979) Invaginating telodendria: A pathway for color-specific interconnections between goldfish cones. Invest. Ophthal. Vis. Sci. (Suppl.) 19:82.
*Marshak D, Yamada T, Basinger S, Walsh J, Stell WK. (1979) Characterization of somatostatin-like immunoreactivity in the retina. Invest. Ophthal. Vis. Sci. Suppl. 19:85.
*Djamgoz MBA, Stell WK. (1980) Physiological evidence for opioid pathways in goldfish retina. Soc. Neurosci. Abstrs. 6:613.
*Stell WK, Chohan KS, Brecha N. (1981) Enkephalin-immunoreactive amacrine cells in the retinas of some teleost fish. Soc. Neurosci. Abstrs. 7:94.
*Marshak D, Lightfoot D, Yamada T, Stell WK. (1981) Ultrastructural localization of somatostatin-like immunoreactivity in goldfish retinal amacrine cells. Soc. Neurosci. Abstrs. 7:620.
*Walker SE, Djamgoz MBA, Stell WK. (1982) Luteinizing hormone-releasing hormone (LHRH) modifies activity of goldfish retinal ganglion cells. Fed. Proc. (Abstrs.) 41:1532.
*Stell WK, Chohan KS, Lam DMK, Kozlowski GP. (1982) Luteinizing hormone-releasing hormone (LHRH)-immunoreactive fibres in goldfish retina. Invest. Ophthal. Vis. Sci. (Suppl.) 22:278.
*Walker SE, Stell WK, Djamgoz MBA. (1982) Modification of goldfish retinal ganglion cell activity by exogenous luteinizing hormone-releasing hormone (LHRH). Invest. Ophthal. Vis. Sci. (Suppl.) 22:278.
*Harrison A, Becker W, Stell WK. (1982) Color vision and visually evoked potentials in multiple sclerosis. Invest. Ophthal. Vis. Sci. (Suppl.) 22:222.
Harrison A, Becker W, Stell WK. (1982) Visually evoked potentials and color vision in multiple sclerosis. Abstrs. VII Canad. Congress Neurol. Sci.
Kock J-H, Stell WK, Karkhanis A. (1982) Developmental plasticity of receptor-bipolar cell connections in goldfish retina. Second Annual Heritage Research Days, Abstrs. A247.
Stell WK, Chohan KS. (1982) Nervus terminalis: An LHRH- and FMRFamide-immunoreactive olfacto-retinal efferent pathway in goldfish. Ibid. A244.
Ball AK, Stell WK, Chohan KS. (1982) Structure of LHRH- and FMRFamide-immunoreactive fibres in the goldfish retina. Ibid, A243.

Walker SE, Stell WK. (1982) Luteinizing hormone-releasing hormone (LHRH) and molluscan cardio-excitatory peptide (FMRFamide) have seasonal effects on retinal goldfish ganglion cells. Ibid. A245.

Chohan KS, Stell WK, Brecha N, Yamada T. (1982) Peptide-immunoreactive neurones and fibres in retinas of marine fishes. Ibid. A256.

Tumosa N, Stell WK. (1982) Immunocytochemical localization of cholinergic neurons in goldfish retina. Ibid, A246.

Weiler R, Stell WK. (1982) Photoresponses and structural correlates of amacrine cells in the vertebrate retina. Ibid. A242.

Harrison A, Becker W, Stell W. (1982) Visually-evoked potentials and color vision in multiple sclerosis. Ibid. A238.

Orford D, Conn W, Stell WK. (1982) A computer system for 3-dimensional reconstruction from serial sections. Ibid., A237.

Shimizu Y, Patten M, Stell WK, Spira A. (1982) Localization of somatostatin immunoreactivity in the guinea pig retina. Ibid., A236.

*Kock J-H, Karkhanis A, Stell WK. (1983) The bl bipolar cell: Evidence for synaptic plasticity in goldfish retina. Invest. Ophthal. Vis. Sci. (Suppl.) 24:7.

*Tumosa N, Stell WK, Eckenstein F. (1983) Immunocytochemical localization of cholinergic neurons in goldfish retina. Invest. Ophthal. Vis. Sci. (Suppl.) 24:223.

*Ball AK, Stell WK. (1983) Structure of LHRH-and FMRFamide-like immunoreactive fibres in the goldfish retina. Invest. Ophthal. Vis. Sci. (Suppl.) 24:66.

*Shimizu Y, Stell WK, Spira A. (1983) Localization of somatostatin, substance P and vasoactive intestinal polypeptide-like immunoeactivity in the guinea pig retina. Invest. Ophthal. Vis. Sci. (Suppl.) 24:223.

Shimizu Y, Patten M, Stell W, Spira A. (1983) Substance P-like polypeptide in the guinea pig retina: A model for studies of the structural-functional relation of a retinal neuropeptide. Proc. Canad. Fed. Biol. Soc. 265:163.

*Weiler R, Ball AK, Stell WK. (1983) Co-localization of (3H)-glycine uptake and neurotensin-like immuno-reactivity in sustained amacrine cells of the turtle retina. Soc. Neurosci. Abstrs. 9:895.

*Parkinson D, Stell WK. (1983) Neuropeptide synthesis and metabolism in vertebrate retina. Soc. Neurosci. Abstrs. 9:1134.

Stell WK. (1983) Peptide-immunoeactive neurones in the retina of spiny dogfish. Third Annual Heritage Research days, 46.

Stell WK, Chohan KS. (1983) Structure and peptide-immunoreactivity of the terminal nerve in spiny dogfish. Ibid., 19.

Ball AK, Weiler R, Stell WK. (1983) Co-localization of (3H)-glycine uptake and neurotensin-like immunoreactivity in sustained amacrine cells of the turtle retina. Ibid., 43.

Kock J-H, Karkhanis A, Stell WK. (1983) The receptor-bipolar assembly: Evidence for synaptic plasticity in goldfish retina. The Cell Biology of Neuronal Plasticity, Villasimius, Sardinia, Italy. Abstracts pp. 96-97.

*Muske LE, Stell WK. (1984) Pancreatic polypeptide-immunoreactive neurons in fish retinas. Invest. Ophthal. Vis. Sci. (Suppl.) 25:284.

*Tumosa N, Stell WK, Eckenstein F. (1984) Are ganglion cells in the goldfish retina cholinergic? Invest. Ophthal. Vis. Sci. (Suppl.) 25:284.

*Ball AK, Weiler R, Stell WK. (1984) Autoradiographic localization of GABA, glycine, and dopaminergic neurons in turtle retinas stained for met-enkephalin and neurotensin-like immunoreactivity. Invest. Ophthal. Vis. Sci. (Suppl.) 25:283.
*Stell WK. (1984) Luteinizing hormone-releasing hormone (LHRH)- and pancreatic polypeptide (PP)-immunoreactive neurons in the terminal nerve of the spiny dogfish, Squalus acanthias. Anat. Rec. 208:173A-174A.
*Walker SE, Stell WK. (1984) Effects of the putative neurotransmitter blockers, 2-amino-4-phosphono-butyrate and mecamylamine, on neural pathways in goldfish retina. Soc. Neurosci. Abstrs. 10:837.
*Muske LE, Stell WK, Chohan KS. (1984) FMRFamide-immunoreactive terminal nerve efferent fibres and pancreatic polypeptide-immunoreactive intrinsic neurones in goldfish retina. Soc. Neurosci. Abstrs. 10:839.
*Shingai R, Quandt FN, Stell WK. (1984) Anomalous rectifier channels in horizontal cells. Soc. Neurosci. Abstrs. 10:325.
*Tumosa N, Stell WK, Eckenstein F. (1984) Choline acetyltransferase immunoreactivity is located in intrinsic retinal neurons but not in retinal afferent terminals in goldfish tectum. Soc. Neurosci. Abstrs. 10:575.
*Mackie GO, Stell WK. (1984) FMRFamide-like immunoreactivity in the neurons of medusae. Amer. Zool. 24:36A.
Pierantoni R, Karkhanis A, Stell WK. (1985) An autoradiographic study on the outer nuclear layer of the retina of mature goldfish. First Congress Ital. Soc. Neurosci., Abstrs.:148-149.
*Stell WK, Chohan KS, Kyle AL. (1985) Substance P-immunoreactivity coexists with LHRH- and FMRFamide-immunoreactivity in nervus terminalis efferents to goldfish retina. Invest. Ophthal. Vis. Sci. (Suppl.), 26:277.
*Kyle AL, Stell WK, Kah O. (1985) Luteinizing hormone-releasing hormone (LHRH)-immunoreactive cells of the terminal nerve, but not other LHRH-IR neurons in the goldfish brain, are also FMRFamide- and tachykinin-IR. Soc. Neurosci. Abstracts, 11:350.
*Stell WK, Rossier J, Chaminade M, Rougeot C, Dray F. (1986) Antisera and radioimmunoassay (RIA) for the free carboxyl terminus of synenkephalin. Soc. Neurosci. Abstracts 12:1044.
Stell WK, Chaminade M, Rossier J, Rougeot C, Dray F. (1986) Anticorps contre la partie carboxylique terminale de la synenképhaline des mammifères. II^{e} Colloque National des Neurosciences, Bordeaux, France. Résumé des Communications, p. G64.
*Pierantoni R, Karkhanis A, Stell WK. (1986) Spatial distribution of cells added to the outer nuclear layer of mature goldfish retina. Invest. Ophthal. Vis. Sci. (Suppl.) 27:229.
*Uchiyama H, Reh T, Stell WK. (1987) Morphological and immunocytochemical evidence for a retinopetal projection in anuran amphibians (Rana catesbeiana and Xenopus laevis). Soc. Neurosci. Abstracts 13:305.
*Stell WK, Karkhanis A, Bremner L. (1988) Rod neuroblast proliferation in goldfish: Circadian rhythm and detection. Invest. Ophthal. Vis. Sci. (Suppl.) 29:348.

Stell WK, Karkhanis A, Bremner L, Fritzler MJ. (Sept. 1988) Immunoreactive PCNA identifies proliferating neuroblasts in goldfish retina. Proceedings, Intern. Symp. on Retinal Devel. & Regener., Banff, p.7.

Stell WK, Ball AK, Kawamata K, Kyle AL, Magnus T, Ohtsuka T, Uchiyama H, Walker SE. (Sept. 1988) Retinopetal (efferent) fibres of the nervus terminalis in the goldfish retina. Symposium on Functionally Identified Subcircuits in Vertebrate Retina, 8th International Congress of Eye Research, San Francisco, Calif., p.12.

Kyle A, Stell WK. (June 1988) Gonadotropin-releasing hormone immunoreactivity in the olfactory system of the goldfish. Proceedings lst Internat. Sympos. on Fish Endocrinol., Edmonton, p.43, #P47.

Magnus TH, Stell WK. (June 1988) A radioimmunoassay for measuring GnRH precursor concentrations in teleosts. Proceedings lst Internat. Sympos. on Fish Endocrinol., Edmonton, p.43, #P48.

Negishi K, Teranishi T, Stell WK, Karkhanis A, Bremner L. (August 1989) Studies of neuroblast proliferation in teleostean retinas by immunochemical detection of proliferating cell nuclear antigen (PCNA). In: Fish Vision, A multidisciplinary Approach to a Model System. Oristano, Sardinia, Conference Proceedings.

Stell WK, Magnus T, Kyle AL, Ohtsuka T, Kawamata K. (August 1989) Structure, function and chemistry of nervus terminalis retinal efferent fibres in goldfish. In: Fish Vision, A Multidisciplinary Approach to a Model System. Oristano, Sardinia, Conference Proceedings.

Karkhanis A, Bremner L, Fritzler MJ, Stell WK. (1989) Use of PCNA immunoreactivity to identify proliferating cells in goldfish retina. CFBS Proceedings, p. 153, #590.

Stell WK, Baturin C. (1989) Proenkephalin-derived peptides in mammalian retinas. CFBS Proceedings, p. 153, #591.

Magnus T, Stell WK. (1989) Identification of precursor for teleost GnRH in the goldfish retina. CFBS Proceedings, p. 153, #592.

Yamaguchi K, Magnus T, Ogata K, Stell WK. (1989) Assessment of growth in ocular tissues by RIA for proliferating cell nuclear antigen (PCNA). CFBS Proceedings, p.152, #589.

Mortimer ST, Hanley DA, Stell WK. (1989) The immunohistochemical identification of calcitonin gene-related peptide and substance P- containing nerves within the bovine parathyroid gland. AHFMR Heritage Days Abstracts.

Owusu-Yaw V, Stell WK. (1989) Control of rod precursor proliferation in goldfish retina: Effect of surgical lesioning of the brain. AHFMR Heritage Days Abstracts.

*Owusu-Yaw V, Stell WK. (1990) Retinal efferent fibres may modulate proliferation of rod precursors in goldfish retina. Invest. Ophthal. Vis. Sci. (Suppl.), 31:160 (#794).

*Stell WK, Yamaguchi K, Karkhanis A, Magnus TH. (1990) Quantifying cell proliferation in rat ocular tissues by radioimmunoassay for proliferating cell nuclear antigen (PCNA). Invest. Ophthal. Vis. Sci. (Suppl.) 31:204 (#1005).

*Rohrer B, Spira AW, Stell WK, Wagner H-J. (1992) The site of action of dopamine in form-deprivation myopia. Invest. Ophthal. Vis. Sci. (Suppl.), 33:1052.

Stell WK. (1992) Circuitry for chromatic processing in goldfish horizontal cells: The feedback-cascade model, seventeen years later. Exp. Eye Res., 55:S238.

*Rohrer B, Negishi K, Tao J, Stell W K. (1993) A role for basic fibroblast growth factor (bFGF) in the visually guided regulation of eye growth in the chick. Invest. Ophthal. Vis. Sci. Investigative Ophthalmology and Visual Science (Suppl.) 34, 1209.

*Seltner R L.P, Tao J, Rohrer B, Stell W K. (1993) A role for vasoactive intestinal polypeptide (VIP) in growth and form-deprivation myopia (FDM) in the chick eye. Invest. Ophthal. Vis. Sci. (Suppl.). 34, 1210.

*Stell WK, Barton L. (1993) Localization of glutamate receptor subunits in the outer plexiform layer of goldfish retina. Invest. Ophthal. Vis. Sci. (Suppl.). 34, 1333.

*Wagner H-J, Behrens UD, Ariano MA, Sibley DR, Stell WK. (1993) Microanatomy of the dopaminergic system in the rainbow trout retina. Investigative Ophthalmology and Visual Science (Supplement), 34: 752.

Rohrer B, Tao J, Stell WK. (1993) Light stimulus-modulated release of basic fibroblast growth factor (bFGF) from chick retinal amacrine cells. Society for Neuroscience Abstracts, 19, 251.

Stell WK, Seltner RLP, Rohrer B, Tao J. (1993) Experimental studies of ocular growth: development of drug therapy to prevent myopia. First Alberta Pharmaceutical Symposium, Edmonton, November 29-30, 1993.

*Seltner RLP, Grant V, Stell WK. (1994) [Met5]-enkephalin and form deprivation myopia. Invest. Ophthal. Vis. Sci. (Suppl.), 35:2069.

*Rohrer B, Iuvone PM, Stell WK. (1994) Stimulus-transcription coupling in amacrine cells (ACs): Involvement of proto-oncogene c-fos in form-deprivation myopia (FDM) in the chicken. Invest. Ophthal. Vis. Sci. (Suppl.), 35:1802.

Seltner RLP, Stell WK. (1994) Retinal opiates and form deprivation myopia: A pharmacological and immunocytochemical investigation. Sherbrooke Symposium Proceedings.

Rohrer B, Tao J, Stell WK. (1994) Basic fibroblast growth factor (bFGF, FGF-2) and transforming gorwth factor-beta (TFG-ß) provide stop and go signals for the eye during postnatal growth. Sherbrooke Symposium Proceedings.

*Seltner RLP, Stell WK. (1995) Differential bindings of a PNS and CNS vasoactive intestinal peptide (VIP) antagonist in the chick eye: Possible dual role of VIP in form-deprivation myopia (FDM). Investigative Ophthalmology and Visual Science (Supplement) 36: S413.

*Schultz K, Goldman D, Stell WK. (1995) GluR4 glutamate receptor subunits are present in dendrites of OFF-bipolar cells in the goldfish retina. Investigative Ophthalmology and Visual Sciences (Supplement), 36: S286..

*Rohrer B, Iuvone PM, Stell WK. (1995) Stroboscipic light prevents form-deprivation myopia (FDM) in the chick by promoting dopamine (DA) synthesis. Investigative Ophthalmology and Visual Science (Supplement), 36: S414.

*Fischer AJ, Reisch HM, Kyle AL, Stell WK. (1995) Light-modulated release of Rfamide-like peptides (Rfa-LPs) from terminal nerve (TN) efferents to goldfish retina. Investigative Ophthalmology and Visual Science (Supplement), 36: S290.

Stell WK. (1995) Glutamate receptor subunits and synaptic transmission in the outer plexiform layer of goldfish retina. Keio Journal of Medicine, 44(2): 75-76.

Stell WK, Goldman D, Lightfoot DO, Nagy AR, Schultz K. (1995) Glutamate receptors in the outer plexiform layer of goldfish retina. In: Dynamics of the Outer Retina: A

functional description based on morphology, physiology and neural modelling. Satellite Symposium of the European Neuroscience Association, Amsterdam, Sept. 1-2, 1995, #1.
*Seltner RLP, Stell WK. (1995) Form deprivation myopia (FDM) in the chick retina -a pharmacological investigation ofthe opiate and NMDA systems. Society for Neuroscience Abstracts, 21: 1559.
Seltner RLP, Stell WK. (1996) NMDA receptors are obligatory in retinal pathways that control ocular growth in chicks. Proceedings Australian Neuroscience Society, 7:56.
*Mora-Ferrer C, Dabin I, Stell WK. (1996) In situ hybridization of retinal dopamine D1 receptor in goldfish. Investigative Ophthalmology and Visual Science (Supplement – ARVO Abstracts), 37: S951.
Schultz K, Stell WK. (1996) Immunocytochemical localization ofthe glutamate transporter EAAC1 in the vertebrate retina. German Neurobiological Society, Göttengen, June 1996.
*Fischer AJ, McKinnon LA, Nathanson NM, Stell WK. (1997) Identification and localization of muscarinic acetylcholine receptors (mAChR) in ocular tissues of chicks. Investigative Ophthalmology and Visual Science (Supplement) 38:S759.
*Stell WK, Miethke P, Morgan IG. (1997) Regulation of ocular growth in chickens is unaffected by ablation of cholinergic amacrine cells. Investigative Ophthalmology and Visual Science (Supplement), 38:S759.
*Fischer AJ, Miethke P, Morgan IG, Stell WK (1998) Retinal sources of acetylcholine (ACh) do not participate in visually guided ocular growth or atropine-mediated suppression of form-deprivation myopia. Investigative Ophthalmology and Visual Science (Supplement), 39:S717.
*McGuire JJ, Stell WK (1998) Fos-labelling of retinal neurons activated by complex visual stimuli: Relevance to form-deprivation myopia and ocular growth control. Society for Neuroscience Abstracts, 24:2091.
*Stell WK, McGuire JJ, Schaeffel F, Fischer AJ (1999) Vision-dependent expression of ZENK in the chick retina. Investigative Ophthalmology and Visual Science (Supplement), 40:S963.
*McGuire JJ, Stell WK (1999) Antisense oligodeoxynucleotides to fos block a component of ocular growth-control in chicks: Relevance to form-deprivation myopia and emmetropization. Investigative Ophthalmology and Visual Science (Supplement), 40:S848.
*Gudgeon JHR, Fischer AJ, Stell WK (1999) The effect of nitric oxide on the development of form-deprivation myopia in the neonatal chick. Investigative Ophthalmology and Visual Science (Supplement), 40:S450.
*Fischer AJ, Stell WK, Reh TA. (1999) Repair and regeneration of the post-natal chick retina. Society for Neuroscience Abstracts, 25:495.
*Stell WK, Lencses KA, Ahn J-M, Hruby VJ. (2000). Glucagon-synthesizing amacrine cells mediate choroidal compensation for plus-defocus in the chick eye. European Journal of Neuroscience, 12(Supplement 11):487.
*Baird KJ, Stell WK. (2001) Nitric oxide as a neurotoxin in the chick retina. Investigative Ophthalmology and Visual Science (Supplement) 42:S636 (#3422).

*Luft WA, Iuvone PM, Stell WK. (2001) Activation of dopaminergic amacrine cells and release of dopamine in response to visual stimulus. Investigative Ophthalmology and Visual Science (Supplement)42:S674 (#3628).

*Stell WK & Baird KJ (2002) Mechanisms of sodium nitroprusside-induced damage in the chick retina. Investigative Ophthalmology and Visual Science (Supplement), 43:#4530.

*Ming Y, Baird KJ, Cramb DT & Stell WK (2002) Retinal and choroidal responses to nitroprusside in the chick: a novel animal model for macular degeneration. Investigative Ophthalmology and Visual Science (Supplement), 43:#2736.

*Baird KJ, Stell WK. (2002) Uveitis induced by platelet-activating factor (PAF) in the chick eye: a novel model for human ocular disease. Investigative Ophthalmology and Visual Science (Supplement), 43:#1556.

Zhong XW, Ge J, Tao J, Smith EL IIIrd & Stell WK (2002) Defocus and deprivation modulate expression of transcription factor Egr-1 in monkey retina. 9th International Conference on Myopia: Hong Kong and Guangzhou, 10-14 November, 2002, Conference Abstracts.

*Garg S & Stell WK (2003) Inconsistent effect of stroboscopic flicker on form-deprivation myopia in chicks. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program # 1982.

*Liu C, Douglas R, Schmid KL, Rushforth D & Stell WK (2003) Lack of spatial-frequency dependency of myopia-prevention by computer-generated sine-wave gratings in chicks. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program # 1980.

*Zhong X, Ge J, Smith EL 3rd & Stell WK (2003) Mechanisms of emmetropization in primates: Modulation of retinal amacrine cell activity by form deprivation and defocus in macaque retina. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program # 2804.

Stell WK, Tao J, Karkhanis A, Siegwart JT Jr & Norton TT (2003) Intensity- and focus-dependent modulation of activity (expression of immediate-early gene products) in retinal interneurons of the tree shrew, Tupaia glis belangeri. Fall Vision Meeting, Tucson AZ, October 4-6, 2003.

*Vessey KA, Rushforth D & Stell WK (2004) Proglucagon-derived peptides that prevent form-deprivation myopia in chicks: Towards identifying endogenous peptides that promote emmetropization. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #1231.

*Orton NC, Vessey JP, Lalonde M, Tremblay F, Barnes S, Mansergh FC, Rancourt DE, Stell WK & Bech-Hansen NT (2004) Mutation of the Calcium Channel Gene Cacna1f Disrupts Calcium Signalling and Synaptic Transmission in Mouse Retina. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #2507.

*Stell WK, Tao J, Karkhanis A, Siegwart JT Jr & Norton TT (2004) Amacrine cells responsive to optical conditions regulating eye growth in the tree shrew, *Tupaia glis belangeri*. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #1159.

*Orton NC, Mansergh FC, Rancourt DE, Stell WK & Bech-Hansen NT (2004) Abnormal bipolar and horizontal cell morphology and near absence of photoreceptor

synaptic ribbons in the retina of *Cacna1f*-mutant mouse. The Laboratory Mouse in Vision Research, Conference at Jackson Laboratory, Bar Harbor ME, October 2004.

*Ayotte ALG, Rushforth DA, Tao J, Vessey KA & Stell WK (2005) The effects of stroboscopic flicker on form-deprivation myopia in chicks. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #1981.

*Beloukhina N, Vessey K & Stell WK (2005) Glucagon prevents myopia via distal retina or RPE. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #3337.

*LeBaron DB, Schmid KL, Newlands G, Vessey K, Ayotte AG, Liu CM & Stell WK (2005) Spatial frequency tuning of myopia-prevention in chicks by lens-cone gratings. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #1978. https://iovs.arvojournals.org/article.aspx?articleid=2401457

Orton NC, Mansergh FC, Rancourt DE, Stell WK & Bech-Hansen NT (2005) CaCNA1F mutant mice exhibit altered retinal synaptic morphology. Synapse 2005, poster presentation, July/2005.

*Tran S & Stell WK (2006) Quantification of chick spatial vision using optokinetic following response. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #3331.

*DeVetten GL, LeBaron DB, Ayotte AG & Stell WK (2006) Effects of stimulus orientation and defocus on prevention of form-deprivation myopia by gratings in lens-cones. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #3329.

Stell WK (2006) Retinal mechanisms in control of eye growth. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #1. Invited Sunday Symposium presentation.

*Bonfield S, Tejedor J, Bech-Hansen NT, McRory JE, Stell WK (2007) Spatiotemporal contrast sensitivity characteristics of optokinetic responses in chicks and in normal and *Cacna1f*-mutant mice. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #2988.

*Orton NC, Stell WK, Bech-Hansen NT (2007) The *Cacna1f*-mutant retina shows evidence of failed synaptogenesis, abnormal synaptic ribbon structure and increased photoreceptor cell death. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #4466.

*Reese BE, Raven MA, Orton NC, Nassar H, Williams GA, Stell WK, Jacobs GH, Bech-Hansen NT (2007) Afferent control of horizontal cell morphology: Dissecting the roles of pedicle formation and visual activity. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #5697.

Stell WK, Julyan-Gudgeon JHR, Ming Y, Ayotte AL & Fischer AJ (2007) Nitric oxide, eye growth, and myopia-prevention. Platform presentation, 2nd Alberta Vision Science Symposium, Edmonton, 01 September 2007.

Crowder N, Gaillard F, Kuny S, Mema SC, Gilmour G, Martin B, Bonfield S, Stell WK & Sauvé Y (2007) A new species to study blindness: The Nile grass rat. Poster, 2nd Alberta Vision Science Symposium, Edmonton, 01 September 2007.

Stell WK, Zhong X, Ge J & Smith EL 3rd (2007) Selective activation of a subpopulation of GABAergic amacrine cells by focused and defocused images in Macaque retina. European Retina Meeting, Frankfurt, Germany, 04-06 October 2007.

Tobias R, Orton NC, Lodha N, Stell WK & Bech-Hansen NT (2008) Congenital stationary night blindness in man and mouse: retinal neurotransmission defect in which photoreceptor synapses fail to develop. 4th Canadian Developmental Biology Conference, Banff, AB, 28 Feb – Mar 02, 2008.

*Bonfield S, Crowder N, Gilmour G, Mema S, Gaillard F, Stell WK & Sauvé Y (2008) Retina function and spatial vision in a diurnal cone-rich laboratory rodent, the Nile grass rat (*Arvicanthis niloticus*). Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #3838.

*Gaillard F, Bonfield S, Gilmour G, Kuny S, Mema SC, Martin B, Smale L, Crowder N, Stell WK & Sauvé Y (2008) Retinal anatomy of a diurnal laboratory rodent, the Nile grass rat *Arvicanthis niloticus*. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #1316.

*Sauvé Y, Bonfield S, Mema SC, Gilmour GS, Zhang K, Kuny S, Crowder N, Gaillard F & Stell WK (2008) Visual function in a mouse model of Stargardt-like dystrophy (*STGD3*). Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #2979.

Stell WK, Zhong X, Ge J & Smith EL 3rd (2008) Amacrine cells activated by focus and plus-defocus in macaque retina. 12th International Myopia Conference Australia 2008, Cairns, 08-12 July 2008. Poster available online: http://links.lww.com/A607

Stell WK, Bech-Hansen NT, Bonfield SP, Doering CJ, Lodha N, McRory JE, Mema SC, Orton NC, Rehak R, Sauvé Y & Tobias R (2008) Congenital stationary night blindness (CSNB) in mice: A twisty tale of two mutants. RD2008 (Conference on Retinal Degeneration), Emei-Shan, Chengdu, China, 18-23 September 2008.

Stell WK, Bonfield S, DeVetten G, LeBaron D, Shi Q, Tran S, Tse F & Schmid KL (2011) Retinal signaling in myopia and hyperopia: spatiotemporal tuning and amacrine cell circuits. Symposium 7: Retinal signalling in myopia and hyperopia: biochemistry and pharmacology. 13th International Myopia Conference (IMC 2010), Tübingen, Germany, July 26-29, 2010. Invited presentation. Optometry & Vision Science, 88(3):421. Online: http://journals.lww.com/optvissci/Fulltext/2011/03000/Myopia__Why_Study_the_Mechanisms_of_Myopia__Novel.10.aspx

Elena Tarutta, Wei-han Chua, Terri Young, Ernst Goldschmidt, Seang-Mei Saw, Kathryn A. Rose, Earl Smith, III, Donald O. Mutti, Regan Ashby, Richard A. Stone, Christine Wildsoet, Howard C. Howland, Andy J. Fischer, William K. Stell, Andreas Reichenbach, Michael Frost, Alex Gentle, Xiaoying Zhu, Jody Summers-Rada, Veluchamy Barathi, Liqin Jiang, Sally McFadden, Jeremy A. Guggenheim, Chris Hammond, Ruth Schippert, Chi-Ho To, Jane Gwiazda, Susana Marcos, Michael Collins, W. Neil Charman, Pablo Artal, Juan Tabernero, David A. Atchison, Anne Seidemann, Dietmar Uttenweiler, David Troilo, Thomas T. Norton, and Josh Wallman (2011) Myopia: Why Study the Mechanisms of Myopia? Novel Approaches to Risk Factors Signaling Eye Growth- How Could Basic Biology Be Translated into Clinical Insights? Where Are Genetic and Proteomic Approaches Leading? How Does Visual Function Contribute to and Interact with Ametropia? Does Eye Shape Matter? Why Ametropia at All? Optometry & Vision Science, 88(3):404-447. Online: http://journals.lww.com/optvissci/Fulltext/2011/03000/Myopia__Why_Study_the_Mechanisms_of_Myopia__Novel.10.aspx

Cantrup R, Bonfield S, Stell W, Sauvé Y & Schuurmans C (2010) PTEN is required to establish neuronal connectivity in the mouse visual system. EMBL Symposium : Structure and function of neural circuits. Sept. 5-8, 2010. Heidelberg, Germany. Poster Presentation. [RGPIN/131-2013]

Cantrup R, Bonfield S, Sauvé Y, Stell WK, Schuurmans C (2010) PTEN is required to establish neuronal connectivity in the mouse visual system. Stem Cell Network Annual General Meeting. Calgary, AB. November 22-24, 2010.

Shi Q, Gaillard F, Sauvé Y & Stell WK (2011) Rod pathways in a cone-dominated non-mammalian retina. European Retina Meeting (ERM2011), Amsterdam, 22-24 September 2011. Poster Session 1, Abstract #9: www.retina-meeting.eu/content/ERM2011/schedule.htm, p. 72.

Moinul P, Cheng E & Stell WK (2011) Dopamine prevents form-deprivation myopia via a nitric oxide relay. Hotchkiss Brain Institute Summer Student Symposium, 19 August 2011.

Tze HY, Carr B, Daftarian N, Shi Q, Stell WK & Bech-Hansen NT (2011) Immunocytochemical Characterization of the *Cacna1f* ^{G305X} mouse retina. O'Brien Centre Summer Student Poster Session.

Moinul P, Cheng E & Stell WK (2011) Dopamine prevents form-deprivation myopia via a nitric oxide relay. O'Brien Centre Summer Student Poster Session.

Cantrup R, Dixit R, Bonfield S, Shaker T, Tachibana N, Zinyk D, Dalesman S, Stell WK, Reese BE, Sauve Y, Schuurmans C (2012) Cell-type specific roles for PTEN in establishing a functional retinal architecture. 6th Canadian Developmental Biology Conference. Banff, AB. March 8-11, 2012.

Eng D & Stell WK (2012) The role of gap junctions in myopia. Neuroscience Summer Student Symposium, Hotchkiss Brain Institute, University of Calgary Faculty of Medicine. August 24, 2012. Oral presentation.

*Moinul P, Cheng E & Stell WK (2012) Nitric Oxide prevents form-deprivation myopia in chicks without requiring a dopamine D2-Receptor relay. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #3434 (poster presentation). https://iovs.arvojournals.org/article.aspx?articleid=2355408&resultClick=1

*Shi Q, Sauvé Y & Stell WK (2012) Rod-mediated visual function in the cone-dominated retina of the chick. Investigative Ophthalmology and Visual Science (ARVO Abstracts), Program #2451 (poster presentation). http://www.abstractsonline.com/Plan/ViewAbstract.aspx?sKey=78d4e8f6-61f3-4421-94ad-1ecc529e623f&cKey=bfb739c5-2a00-4a29-94fb-eb337c91efa7&mKey={F0FCE029-9BF8-4E7C-B48E-9FF7711D4A0E}

*Shi Q & Stell WK (2012) Light-adaptational shifting of spatial contrast sensitivity in the chicken retina – A role for dopamine. ISER 2012 (Biennial Conference of International Society for Eye Research, Berlin, July 2012). Poster Session, Abstract: https://www.iser.org/meetings.html , 2012 Abstracts, pp. 288-289, #P302.

Stell WK (2012) Preserving Vision: The Potential of Neuro-Protective Treatments. Vision Quest 2012, Foundation Fighting Blindness (Canada), Edmonton AB. November 2012. https://www.youtube.com/watch?v=QB8ZlcQMzm0

*Shi Q & Stell WK (2013) *Die Fledermaus*: In Retinal Light-Adaptation, Chicks Are Mice With Wings. Investigative Ophthalmology and Visual Science (ARVO Abstracts), 54: E-Abstract 3427, poster presentation.

*Carr B, Nathanson N & Stell WK (2013) Atropine Prevents Myopia via a Nitric Oxide-Mediated Relay. Investigative Ophthalmology and Visual Science (ARVO Abstracts), 54: E-Abstract 3677, platform presentation.

*Stell WK, Shi Q & Carr BJ (2013) Dopamine, Nitric Oxide, and Light-Adaptation: Roles in Spatiotemporal Vision and Myopia. Asia Pacific Conference on Vision (APCV) 2013, Suzhou, China. 06 July 2013. Platform presentation, 06 July 2013. PsyCh Journal, Vol 02 Supplement 1: 26. http://onlinelibrary.wiley.com/doi/10.1002/pchj.v2.s1/issuetoc

*Stell WK, Ding H, Zhong X (2013) Effects of outdoor light on experimental hyperopic anisometropia (lens-induced myopia) in infant rhesus monkeys. International Myopia Conference (IMC 2013), Asilomar, California, USA, 19-22 August 2013. Poster presentation. http://onlinelibrary.wiley.com/doi/10.1111/opo.12088/suppinfo, P28.

*Teves M, Shi Q, Eng D & Stell WK (2014) The role of cell-cell coupling in myopia development and light adaptation. Investigative Ophthalmology and Visual Science (ARVO Abstracts), 54: Program #3036. Platform presentation by Ms. Teves, 06 May 2014. https://iovs.arvojournals.org/article.aspx?articleid=2268423&resultClick=1

Moinul P, Cheng E & Stell WK (2014) Dopamine prevents form-deprivation myopia via a nitric oxide relay. 5th Annual University of Calgary Leaders in Medicine Research Symposium, 08 November 2013. Clinical and Investigative Medicine, in press. http://cimonline.ca/index.php/cim/index.

Carr B, Stell WK (2014) Atropine prevents myopia via a nitric oxide mediated relay. University of Calgary Ophthalmology Research Day, 27 January 2014. Oral Presentation (Ms. Carr was awarded Best Basic Science Presentation).

Ding H, Stell WK, Zhong X (2014) Effects of outdoor light on negative-lens-induced myopia in infant rhesus monkeys. University of Calgary Ophthalmology Research Day, 27 January 2014. Poster presented by W.K. Stell.

*Moinul P, Cheng E, Stell WK (2014) Dopamine prevents form-deprivation myopia via a nitric oxide relay. 2013 University of Calgary Leaders in Medicine Symposium; Clinical Investigative Medicine, October 2014, in press.

Zakrzewski H, Alcobila ER, Cana LS, Evangelista RL, Nilmarj J, Dalman DC, Maramot RMB, Robillos J, Sapa A, Shrestha R, Tingcang K, Ybanez EG, Bulloch AGM, Stell WK, Fernandez NO Jr. (2014) Prevalence of myopia in school children in rural and urban regions of the Island of Cebu, Philippines. Leaders In Medicine Student Symposium, University of Calgary – Cumming School of Medicine, 14 November 2014. Poster Presentation by Ms. Zakrzewski.

Popa V, Stell WK, Kee C-S (2015) The role of the brain in lens-induced astigmatism in chicks. University of Calgary Ophthalmology Research Day, January 26, 2015. [*Poster presented by Ms. Popa*]

*Zakrzewski H, Southwestern University College of Optometry Myopia Prevalence Research Study Group, Berzins S, Bulloch AGM, Stell WK, Fernandez NO Jr (2015) Prevalence of myopia in school children in rural and urban regions of the Island of Cebu, Philippines. Investigative Ophthalmology and Visual Science (ARVO Abstracts). Poster presentation at ARVO 2015 (Stell WK) – Abstract #2934.

Teves M, Odermatt N*, Shi Q, Carr B, Eng D & Stell WK (2015) Retinal gap junctions containing Connexin-36: Roles in visual regulation of eye growth and prevention of myopia. (*Equal contributors/first authors). 15th International Myopia Conference 2015 (IMC 2015), Wenzhou, China, September 23-27, 2015. Meeting Program & Abstracts, Poster #PO63.

Fernandez NO Jr, Coté SL*, Zakrzewski H*, Garcia C, Timsina L & Stell WK (2015) The prevalence of myopia in children of the Badjaos tribe of Cebu, Philippines. (*First 3 authors share first-authorship equally). 15th International Myopia Conference 2015 (IMC 2015), Wenzhou, China, September 23-27, 2015. Selected for poster (presented by Dr. Stell).

*Ghodsi L & Stell WK (2015) Blue SAD light protects against form deprivation myopia in chickens, by local signaling within the retina. 15th International Myopia Conference 2015 (IMC 2015), Wenzhou, China, September 23-27, 2015. Selected for oral presentation (by Ms. Ghodsi). Eye and Vision 2016, 3(Suppl 1):28, pp.5-6, Abstract #O13. DOI 10.1186/s40662-016-0057-3P. https://eandv.biomedcentral.com/articles/10.1186/s40662-016-0057-3

*Carr BJ, Stell WK (2016) Alpha$_2$-Adrenergic Agonists Inhibit Form-Deprivation Myopia (FDM) in the Chick. Investigative Ophthalmology and Visual Science (ARVO Abstracts). Chosen for platform presentation (PPT talk), Abstract #4738 at ARVO 2016, February 17, 2016; Control ID: 2433294.

*Stell WK, Popa V, Kee CS (2016) Intrinsic Ocular Mechanisms Underlie Lens-Induced Astigmatism in Chicks. Investigative Ophthalmology and Visual Science (ARVO Abstracts). Chosen for platform presentation (PPT talk), Abstract #3788 at ARVO 2016, February 17, 2016.

Waldner DM, Visser F, Stell WK (2017) Production of Customizable Adeno-Associated Viral Vectors. (2017). Biochemistry and Molecular Biology Methods Day. University of Calgary. 13 April 2017. Selected for oral Presentation.

*Waldner D, Visser F, Stell WK (2017) An avian adeno-associated viral vector for visualization of post-natal chick retinal circuitry. ARVO Abstract #5905. Poster Presentation. http://www.arvo.org/webs/am2017/sectionpdf/RC/Session%20546%20Paradigms%20of%20retinal%20degeneration%20and%20rescue.pdf - http://iovs.arvojournals.org/issues.aspx#issueid=936357

*Carr B, Mihara K, Ramachandran R, Saifeddine M, Nathanson NM, Stell WK, Hollenberg MD (2017) Myopia-Inhibiting Muscarinic Antagonists Also Block α_{2A}-Adrenoceptor Signalling. Association for Research in Vision and Ophthalmology (ARVO) Abstract #5465. Poster Presentation. http://www.arvo.org/webs/am2017/sectionpdf/AP/Session%20518%20Factors%20mediating%20myopia.pdf - http://iovs.arvojournals.org/issues.aspx#issueid=936357

Pagtalunan E, Cheng N, Stell W, Sauvé Y (2018) Investigating scotopic visual function in a mouse model of autism. Ophthalmology and Visual Science Research Day, University of Calgary, January 22, 2018. Selected for oral presentation by Ms. Pagtalunan.

[a]Mihara K, [a]Carr B, Ramachandran R, Saifeddine M, Nathanson NM, Stell WK, Hollenberg MD (2018) Myopia-Inhibiting Muscarinic Antagonists Also Block α_{2A}-Adrenoceptor Signalling. Ophthalmology and Visual Science Research Day,

University of Calgary, January 22, 2018. Poster presentation by Dr. Hollenberg. ([a]Equal first authors)

Waldner D, Visser F, Stell WK (2018) An avian adeno-associated viral vector for visualization of post-natal chick retinal circuitry. Ophthalmology and Visual Science Research Day, University of Calgary, January 22, 2018. Selected for oral presentation by Mr. Waldner; *winner of Best Oral Presentation – Basic Science Award*.

Shah V, Odermatt N, Waldner D, Carr B, Stell WK (2018) Nailing the Role of Retinal Cell-Cell Coupling in Myopia Prevention. Ophthalmology and Visual Science Research Day, University of Calgary, January 22, 2018. Selected for oral presentation by Ms. Shah.

Kang BS, Wang LK, Zheng YP, Guggenheim JA, Stell WK, Kee CS (2018) High myopia induced by form deprivation is associated with altered corneal biomechanical properties in chicks. Submitted for presentation at The 11th Asia Cornea & Contact Lens Conference, Gyeongju, Korea, April 9-10, 2018.

Kee C-S, Kang BS, Wang L-K, Zheng Y-P, Guggenheim JA, Stell WK (2018) Anterior ocular segment changes in chicks developing high myopia by form deprivation. International Conference of Vision & Eye Research, Hong Kong, 8-10 Nov 2018. Invited Presentation.

*Stell WK, Lillywhite AD, Carr BJ (2019) Atropine and NO inhibit form-deprivation myopia via retinal mechanisms in the chick. Association for Research in Vision and Ophthalmology (ARVO), ARVO Abstract #5895, poster presentation 02 May 2019.

Asghar SF, Lillywhite AD, Carr BJ, Stell WK (2019) Atropine inhibits myopia development in chick, via muscarinic and non-muscarinic mechanisms in retina and retinal pigment epithelium. ACHRI (Alberta Children's Hospital Research Institute) Research Retreat, Banff, Alberta, 12 December 2019. Poster Presentation.

*Asghar SF, Stell WK (2020) Atropine for myopia: Muscarinic and non-muscarinic effects in chick. Association for Research in Vision and Ophthalmology (ARVO), ARVO, Abstract submitted 06 December 2019, selected for platform presentation 05-09 May 2020. https://learning.arvo.org/diweb/catalog/launch/media/sid/91010515

*Stell WK (2020) Myopia Prevention: Daylight, or Drugs? In: Curso Miopía (Iribarren) [Myopia Symposium Argentina 2020], Webinar, 07 November 2020. https://youtu.be/rRV_OVefUuQ .

Manuscripts Revised and Edited for Other Authors, with Acknowledgement

Tkatchenko TV, Shen Y, Braun RD, Bawa G, Kumar P, Avrutsky I, Tkatchenko AV. (2013) Photopic visual input is necessary for emmetropization in mice. Exp Eye Res, 115:87-95. http://dx.doi.org/10.1016/j.exer.2013.06.025

Zhang S ... Qu J, Zhou XT. (2018) Dopamine Receptor Subtypes Mediate Opposing Effects on Form Deprivation Myopia in Pigmented Guinea Pigs. Invest Ophthalmol Vis Sci, 59(11):4441-4448. https://doi.org/10.1167/iovs.17-21574

Zhang S...Qu J, Zhou XT. (2019) Changes in Choroidal Thickness and Choroidal Blood Perfusion in Guinea Pig Myopia. Invest Ophthalmol Vis Sci, 60(8):3074-3083. https://doi.org/10.1167/iovs.18-26397

Zhou X...QuJ, Zhou XT. (2020) Increased Choroidal Blood Perfusion Can Inhibit Form Deprivation Myopia in Guinea Pigs. Invest Ophthalmol Vis Sci, 61(13):25. https://doi.org/10.1167/iovs.61.13.25

Huang F, Wang Q, Yan T, et al. (2020) The role of the dopamine D2 receptor in form-deprivation myopia in mice: studies with full and partial D2 receptor agonists and knockouts. Invest Ophthalmol Vis Sci, 61(6):47. https://doi.org/10.1167/iovs.61.6.47

Zhi Z...Qu J, Zhou X. (2021) The role of retinal connexin Cx36 and horizontal cell coupling in emmetropization in guinea pigs. Invest Ophthalmol Vis Sci, 62(9):27. https://doi.org/10.1167/iovs.62.9.27

Wu H ... Qu J, Zhou XT (2021) Assessment of choroidal vascularity and choriocapillaris blood perfusion in anisomyopic adults by SS-OCT/OCTA. Invest Ophthalmol Vis Sci; 62(1):8. https://doi.org/10.1167/iovs.62.1.8

Pan M ... Qu J, Zhou XT. (2021) Dietary ω-3 polyunsaturated fatty acids are protective for myopia. PNAS, 118(43):e2104689118. https://doi.org/10.1073/pnas.2104689118

Yang Y ... Zhong X. (2021) Intravitreal brimonidine inhibits form-deprivation myopia in guinea pigs. Eye and Vision, 8:27. https://doi.org/10.1186/s40662-021-00248-0

Zhou X ... Qu J, Zhou XT (2021) Decreased choroidal blood perfusion induces myopia in guinea pigs. Invest Ophthalmol Vis Sci, 62(15):30. https://doi.org/10.1167/iovs.62.15.30

Huang F, Shu Z, Huang Q,et al. (2022) Retinal dopamine D2 receptors participate in the development of myopia in mice. Invest Ophthalmol Vis Sci, 63(1):24. https://doi.org/10.1167/iovs.63.1.24

Muralidharan AR, Low SWY, Lee YC ... Najjar RP. (2022) Recovery from form-deprivation myopia in chicks is dependent upon the fullness and correlated color temperature of the light spectrum. Invest Ophthalmol Vis Sci, 63(2):16. https://doi.org/10.1167/iovs.63.2.16

Zhi Z, Qian Fu Q, Chen S ... Zhou XT (2022) Near work induces myopia in guinea pigs. Revision under review, Invest Ophthalmol Vis Sci; December 2021.

Book Reviews and Letters

Stell, W.K. (1971) Comment on S-potential localization in the cat. Vision Res. 11:1027.

Stell, W.K. (1975) Sensory Reception: Cytology, Molecular Mechanisms and revolution by Y.A. Vinnikov (Book Review). Bio. Science, 25:672.

Stell, W.K. (1977) Retinas of Fishes: An Atlas by M.A. Ali and M. Anctil (Book Review). J. Fish. Res. Bd. Canada 34:2232.

Stell, W.K. (1977) Reply to Ali and Anctil (Letters). J. Fish. Res. Bd. Canada

Stell WK. (1996) Dystrophin localization at synapse. [letter; comment.]. Investigative Ophthalmology & Visual Science. 37:255.

Theses Supervised: Graduate

Leeper HF (1978) Horizontal cells and their specific photoreceptors inputs in the turtle retina. Ph.D. in Biology, University of California Los Angeles.

Ishida AT (1979) Bipolar cell types and their photoreceptor-specific inputs in goldfish retina. M.S. in Biology, University of California Los Angeles.

Harrison ACM (1984) Color vision losses in multiple sclerosis. M.Sc. in Medical Sciences, University of Calgary.

Owusu-Yaw, V (1990) Local and systemic control of rod precursor proliferation: A role for the terminal nerve efferent fibers and humoral growth factors. M.Sc. in Medical Sciences, University of Calgary.

Rohrer BM (1994) Roles for dopamine and basic fibroblast growth factor in the regulation of ocular growth. Ph.D. in Neuroscience, University of Calgary.

Fischer, AJ (1996) Characterization of RFamide-like peptides and their light-modulated release from nervus terminalis efferents to the retina of the goldfish (*Carassius auratus*). M.Sc. in Neuroscience, University of Calgary.

Hoang HL (1996) Localization and characterization of NMDA receptor and study of regulation of its expression after optic nerve crush and bilateral olfactory tract section in the goldfish retina. M.Sc. in Neuroscience, University of Calgary.

McGuire JJ (1999) Visual induction of Fos in amacrine cells regulates ocular growth and refraction in chick. M.Sc. in Neuroscience, University of Calgary.

Gudgeon JHR (1999) Nitric oxide and form-deprivation myopia. M.Sc. in Neuroscience, University of Calgary.

Fischer AJ (1999) Muscarinic mechanisms in myopia and ocular growth. Ph.D. in Neuroscience, University of Calgary.

Baird KJ (2002) Platelet-activating factor-induced uveitis and nitric oxide toxicity in the chick retina. M.Sc. in Neuroscience, University of Calgary.

Luft WA (2002) Responses of dopaminergic retinal amacrine cells to growth-regulating visual stimuli. M.Sc. in Neuroscience, University of Calgary.

Lencses KA (2002) Glucagon amacrine cells regulate ocular growth and refraction in chick. M.Sc. in Neuroscience, University of Calgary.

Ayotte AL (2006) Effects of periodic illumination on eye growth in chicks. M.Sc. in Neuroscience, University of Calgary.

Orton NC (2006) Studies of the retina in the *Cacna1f* ^{G305X} mutant mouse. M.Sc. in Medical Genetics, University of Calgary, September 2006 (Informally Co-Supervisor, with Dr. Torben Bech-Hansen, Supervisor)

Bonfield SP (2009) The optokinetic response (OKR) as a measure of retinal function and dysfunction. M.Sc. in Neuroscience, University of Calgary. June 2009.

Shideler KK (2011) Immunohistochemical characterization of the primary auditory cortex in mice. M.Sc. in Neuroscience, University of Calgary, March 2011. (Informally Co-Supervisor, with Dr. Jun Yan, Supervisor)

Shi Q (2014) Mechanisms of retinal adaptation to light and contrast. Ph.D. Thesis in Neuroscience, University of Calgary. September 2009-June 2014.

Carr B (2011-2017) Mechanisms of Myopia-Inhibiting Muscarinic Antagonists in Chick: A Case of Mistaken Identity? Ph.D. Thesis in Neuroscience, University of Calgary. Successfully defended, 31 March 2017.

Waldner D (2014-2018) Channeling Vision: Voltage-Gated Calcium Channels of Rods and Cones. Ph.D. Thesis in Neuroscience, University of Calgary. Successfully defended, 27 September 2018.

Yang Y (2019-present) Effect of activation of alpha2-adrenergic receptor on myopia and its mechanism. MD/PhD Student, PhD Thesis in progress. State Key Laboratory

of Ophthalmology, Zhongshan Ophthalmic Centre, Sun Yat-sen University, Guangzhou, China. Informal Co-Supervisor with Prof. Xingwu Zhong.

Theses Supervised: Undergraduate

Carr B (2011) Retinal circuitry, visual function, and control of eye growth. B.H.Sc. Honours Thesis, University of Calgary, April 2011.

Cheng EKH (2012) Localization of nitric oxide production and action in the chicken eye during inhibition of myopia progression with form vision. B.H.Sc. Honours Thesis, University of Calgary, April 2012.

Moinul P (2012) Prevention of form-deprivation myopia in chickens by sinusoidally flickering light. B.H.Sc. Honours Thesis, University of Calgary, April 2012.

Quach K (2014) Role of nitric oxide (NO) and dopamine (DA) in regulating form-deprivation myopia. B.H.Sc. Honours Thesis, University of Calgary, April 2014.

Teves MM (2014) Gap junctions and their role in myopia development. B.Sc. Neurosci. Honours Thesis, University of Calgary, April 2014.

Ladan Ghodsi, BHSc (Hons thesis), “Blue SAD light protects against form-deprivation myopia in chickens.” B.H.Sc. Honours Thesis, University of Calgary, April 2015.

Vanessa Popa, BHSc (Hons thesis), “Retinal control of lens-induced astigmatism in chicks.” B.H.Sc. Honours Thesis, University of Calgary, April 2015.

Nadine Odermatt, BHSc (Hons thesis), "Retinal gap junctions: Roles in visual regulation of eye growth and prevention of myopia.” B.H.Sc. Honours Thesis, University of Calgary, April 2015.

Non-Scientific Articles

Stell WK (2011) Treatment Naysayers Miff Calgary MS Patients (Calgary Herald, Letter to the Editor), 25 August 2011.

Stell WK (2012) Religious Wars (Calgary Herald, Letter to the Editor), 9 March 2012.

Stell WK (2012) So you want to be a mentor? The Post (PDAC Newsletter, University of Calgary Post-Doctoral Association), March 2012, 3(1):6-7.

Stell WK (2012) I Love A Parade But Not The Parade Marshal (Calgary Herald, Letter to the Editor), 13 July 2012.

Stell WK (2012) [Hatred Is In The] Eye Of The Beholder (Calgary Herald, Letter to the Editor), 22 September 2012.

Stell WK (2013) Philosophical Truth (Calgary Herald, Letter to the Editor), 30 July 2013.

Interviewed and Quoted in Non-Academic Publications

Run for Sight – Global TV Calgary – Sept. 11, 2010 – Interview with Dagmar Jamieson. https://www.youtube.com/watch?v=OjAWbSAPVb8

Seppa N (2013) Urban Eyes. Too much time spent indoors may be behind a surge in nearsightedness. Science News, February 9, 2013, pp. 22-25.

The Foundation Fighting Blindness (2014) Dr. Bill Stell Reflects on the Foundation’s History of Sight-Saving Research. http://www.ffb.ca/news_details.html?article_id=440

Vision Quest Calgary (2014) Views on being a research scientist and professor. Presentation on the 'Bionic Eye'. Interview and formal presentation. Accessible Media Inc. – AMI Inside, Season 1, Episode 3, Vision Quest: http://www.ami.ca/AMI-tv/Pages/AMI-Inside.aspx - Minutes 7:45-16:25.

Interview by Shawn Maloney on As I See It (podcast), posted 23 December 2015: "discussion covers some of the most promising avenues to treat degenerative retinal diseases, including gene therapy, optogenetics, electronic retinal prostheses, stem cell therapy, and neuroprotection … and how to prevent myopia!"; available as Episode 5 – free iTunes download: https://itunes.apple.com/us/podcast/as-i-see-it/id1063501133?mt=2

Frequent postings on Facebook pages devoted to information for lay public on retinal degeneration – causes and developments in therapy – such as "Retinitis Pigmentosa - research and treatments", "RP Discussion & Support", "Eye, Brain & Vision", and "Vision Rehabilitation".

Interview by Calgary free-lance writer, Chris Nelson, for proposed newspaper article on myopia – January 19, 2016.

Interviewed on CTV Morning Live – to help promote FFB's Comic Vision – April 21, 2016: http://calgary.ctvnews.ca/video?clipId=854230

Statement on CSNB research for Alberta Ride for Sight article in Cochrane Times, July 14, 2016.

Stell WK. Global Collaboration. In: 5 Members in 5 Minutes. ARVONews, Fall 2016, by invitation; page 6.

Interviewed on Challenges & Change with Craig Oliver – AMI-TV, Season 4, Episode 24 – 22 August 2018.
https://www.ami.ca/category/challenges-change-craig-oliver/media/dr-bill-stell

No Harm Done: Three Plays about Medical Conditions
By Eugene Stickland, with commentaries by Dagmar Jamieson, Crystal Phillips, Dr. Sherry Dupuis, Dr. Pia Kontos, Dr. Christine Jonas-Simpson, Dr. Julia Gray, Dr. William Stell, Dr. Yves Sauvé, and Dr. Bin Hu. Durvile & UpRoute Books, Alberta, CA
https://www.durvile.com/Shopify/Buy_No%20Harm.html

BroadEye Podcast Interview by Shawn Maloney – January 2022 – free access: https://drive.google.com/file/d/1CXb43m5ZfzSXjZzgMgM55S6-FIh82gPs/view; https://broadeye.org/stell/

News Article: "Lions' generosity stretches all the way to the Philippines."
In Okotoks Today online, June 9, 2022: https://www.okotokstoday.ca/local-news/lions-generosity-stretches-all-the-way-to-the-philippines-5437671
In Western Wheel community newspaper, print, June 15, 2022: https://edition.pagesuite-professional.co.uk/html5/reader/production/default.aspx?pubname=&pubid=ddb99b9a-a9c7-4dc0-be43-e4a0f41d42a3, page 10.

Non-Academic, Non-Scientific Activities

Ongoing mentor to numerous undergraduate, graduate, and medical students.

Singing:

1994-1998: Calgary Bach Festival Society (chorus, bass section)

1998-2007: Calgary Opera (chorus, bass section)

- 1998-1999: Faust (opera), Verdi Requiem (concert), Rigoletto (opera)
- 1999-2000: Carmen (opera), The Pearl Fishers (opera)
- 2000-2001: Aida (opera), Die Fledermaus (opera)
- 2001-2002: Susanna (opera)
- 2002-2003: Dialogues of the Carmelites (opera), La Bohème (opera) 30th Anniversary Gala Celebration (concert)
- 2003-2004: Filumena (opera; World Premiere), La Traviata (opera)
- 2004-2005: Sweeney Todd (opera), Lakmé (concert)
- 2005-2006: Turandot (opera)
- 2006-2007: Dead Man Walking (opera), The Magic Flute (opera)

1999-2007: Christmas Cheer (professional caroling quartet: Bass)

2019: Canberra Choral Society. Added chorister for performance of The Messiah (Handel): Llewellyn Hall, Canberra ACT, AU. 23 November 2019.

2020-pres. Big Rock Singers, Okotoks. Singer in main chorus and men's chorus. Christmas Concert 11 December, 2021.

2022-pres. Foothills Philharmonic Society, Okotoks. Full Chorus, Jan 2022 - present.

Lions Club of Okotoks:

Regular member since September 2021

Vice-President Elect, September 2022 -