Richard Henry Dyck

Professor, Dept. of Psychology, Faculty of Arts
Adjunct Professor, Dept. of Cell Biology & Anatomy, Faculty of Medicine
Member, Hotchkiss Brain Institute
Member, Alberta Children's Hospital Research Institute

Contact Information

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Academic Background

1993	Ph.D. (Neuroscience) The University of British Columbia
1988	M.Sc. (Neuroscience) The University of British Columbia
1981	B.Sc. (Biological Sciences) The University of Lethbridge

Academic Positions

2005-present	Professor, Department of Psychology University of Calgary, Faculty of Arts
2005-present	Adjunct Professor, Department of Cell Biology & Anatomy University of Calgary, Faculty of Medicine
2004-present	Member, Hotchkiss Brain Institute University of Calgary, Faculty of Medicine
2004-present	Member, Alberta Children's Hospital Research Institute University of Calgary, Faculty of Medicine
2004-2005	Visiting Professor, Department of Neuroanatomy & Cell Biology Centre for Neuroscience, University of Heidelberg
2003-2005	Adjunct Associate Professor, Department of Cell Biology & Anatomy University of Calgary, Faculty of Medicine
1998-present	Member, Graduate Program in Neuroscience University of Calgary, Faculty of Medicine
2001-2005	Associate Professor with tenure, Department of Psychology University of Calgary, Faculty of Social Science
1998-2001	Assistant Professor, Department of Psychology University of Calgary, Faculty of Social Science
1996-1998	Postdoctoral Fellow, Department of Psychology & Neuroscience University of Lethbridge
1995-1997	Summer Course Instructor, Neural Systems and Behavior Marine Biological Laboratories, Woods Hole, MA
1993-1996	Postdoctoral Fellow, Molecular Neurobiology The Salk Institute for Biological Studies

Professional Affiliations

1981-present	Society for Neuroscience
1981-present	International Brain Research Organization/World Federation of Neuroscientists
1988-present	Canadian Society for Brain, Behavior and Cognitive Science
1990-present	International Society for Developmental Neuroscience
1993-present	Canadian Association for Neuroscience
1998-present	The Histochemical Society
2001-present	The Cajal Club
2001-present	Canadian League Against Epilepsy
2004-present	International Society for Cerebral Blood Flow and Metabolism
2006-present	International Society for Behavioral and Neural Genetics
2008-present	International Society for Zinc Biology

Awards, Fellowships and Distinctions

2025-27	President, International Society for Zinc Biology
2023-25	President-Elect, International Society for Zinc Biology
2025	College of Reviewers (CIHR) Outstanding Reviewer
2023	University of Calgary, Sabbatical Fellowship (12m)
2016	HBI/Department of Neuroscience Education Award
2015	University of Calgary, Sabbatical Fellowship (12m)
2013	Graduate Student's Association, Supervisory Excellence Award nomination
2009	University of Calgary, Sabbatical Fellowship (6m)
2006	Natural Sciences & Engineering Res. Council of Canada Cmte 12 Chair
2004	Golden Apple Award, Faculty of Medicine Graduate Student's Association
2004	University of Calgary, Sabbatical Fellowship (12m)
2003	Distinguished Research Award; Faculty of Social Sciences
2003	Winner Journal (Neuroscience) Cover Competition; International Brain Res. Organization
2001-2004	Research Scholar Award; NCE/Canadian Stroke Network
2001-2002	Research Fellowship; University of Calgary, Faculty of Social Sciences
1996-1998	Postdoctoral Fellowship; Alberta Heritage Foundation for Medical Research
1997-1998	Postdoctoral Fellowship; Neuroscience Network, Networks for Centers of Excellence
1993-1996	Postdoctoral Fellowship; Medical Research Council of Canada
1995	Research Fellowship Award; The Salk Institute, J. Aron Charitable Foundation
1992-1994	Postdoctoral Fellowship; Natural Sciences & Engineering Research Council (declined)
1990-1992	Research Award (Basic Science, won annually) UBC, Department of Ophthalmology
1989-1992	Postgraduate Scholarship; Natural Sciences & Engineering Research Council of Canada
1989	UBC Graduate Fellowship (declined)
1988	UBC Health Sciences Research Award

Research Grants Held

2025	Canadian Light Source Localizing and quantifying zinc in the brain General User Access Grant Beamtime Cycle 40
2025	Owerko Centre Small Equipment grant, $50,000 Widefield/mesoscale imaging of synaptic zinc release in the developing cerebral cortex
2024	Canadian Light Source Localizing and quantifying zinc in the brain

	Rapid Access Grant Beamtime Cycle 39
2020–2027	Natural Sciences and Engineering Research Council of Canada Discovery grant; Principal investigator; $329,000 The role of zinc signaling in the amygdala
2020-2021	University Research Grants Committee; University of Calgary Seed grant; Principal investigator; $15,000 The role of neuronal zinc signaling on stress effects in the brain
2015-2020	Natural Sciences and Engineering Research Council of Canada Discovery grant; Principal investigator; $200,000 The role of zincergic neurons, and zinc signaling, in cortical plasticity
2019	Faculty of Arts; University of Calgary Seed grant; Principal investigator; $7500
2018	Natural Sciences and Engineering Research Council of Canada Research Tools and Equipment Grant; Principal investigator; $56,790.
2018	Hotchkiss Brain Institute Small Equipment Grant; $7000.
2016-2017	Alberta Children's Hospital Research Institute Small Research Grants Competition Seed grant; Principal investigator; $3000 Effects of maternal stress and Prozac exposure on molecular integrity of neurotransmitter systems
2015-2017	Robertson Foundation for Cerebral Palsy Research Operating grant; Principal investigator; $30,000 Harnessing endogenous stem cells for recovery from ischemic brain damage in the neonate
2015-2017	University Research Grants Committee; University of Calgary Seed grant; Principal investigator; $15,000 Zinc modulation of the microglial response to stress in the brain
2014-2017	University of Calgary; Operating Grant; Principal Investigator; $60,000 Uncovering mechanisms underlying cortical plasticity.
2011-2012	Natural Sciences and Engineering Research Council of Canada Research Tools and Equipment Grant; Principal investigator; $84,474. *In vivo* imaging of the functional organization of the cerebral cortex.
2009-2015	Natural Sciences and Engineering Research Council of Canada Discovery grant; Principal investigator; $240,000 The contribution of zincergic neurons to cerebral cortical plasticity
2008-2013	Canadian Institutes of Health Research Operating grant; Principal investigator; $484,985 Regeneration of the cerebral cortex: Cellular, molecular and behavioural processes
2003-2009	Natural Sciences and Engineering Research Council of Canada Discovery grant; Principal investigator; $112,000 Regulators of cerebral cortical development and plasticity
2003-2007	Canadian Institutes of Health Research Operating grant; Principal investigator; $422,625 Regeneration of the cerebral cortex: Cellular, molecular and behavioural processes
2003-2006	Networks of Centres of Excellence, Canadian Stroke Network, Theme IV Operating grant; Principal investigator: $75,000 Facilitating recovery in the post-stroke brain
2003-2006	Scottish Rite Charitable Foundation of Canada Operating grant, Principal investigator; $105,000 A role for zinc in the pathophysiology of Alzheimer disease
2003-2004	Strafford Foundation for Alzheimer Research Operating grant; Principal investigator; $40,000

	A role for zinc in the pathophysiology of Alzheimer Disease
2002-2003	Strafford Foundation for Alzheimer Research
	Operating grant; Principal investigator; $20,000
	The role of zinc in the pathogenesis of Alzheimer disease
2002-2003	Robertson Foundation for Cerebral Palsy Research
	Operating grant; Principal investigator; $15,000
	Facilitating recovery following ischemic brain damage in the neonate
2001-2003	Networks of Centres of Excellence, Canadian Stroke Network, Theme IV
	Operating grant; Principal investigator; $55,400
	The role of zinc in the physiopathology of stroke
2001-2004	Networks of Centres of Excellence, Canadian Stroke Network
	Research scholarship (salary) award; $150,000
2001-2002	Novartis Foundation for Schizophrenia Research
	Operating grant and summer studentship; $22,500
	Investigations of a novel mouse model of schizophrenia
2000-2001	Networks of Centres of Excellence, Canadian Stroke Network, Theme IV
	Operating grant; Principal investigator; $44,000
	The role of zinc in the pathophysiology of stroke
2000-2001	Networks of Centres of Excellence, Canadian Stroke Network, Theme IV
	Operating grant; Co-Principal investigator; $30,000
	Seizures facilitate post-stroke recovery
2000	Natural Sciences and Engineering Research Council
	Equipment Award; $11,000
1999-2000	Canada Foundation for Innovation; New Opportunities Fund
	Infrastructure grant; Co-Principal investigator; $195,000
1999-2002	CIHR/Canadian Neurotrauma Research Program
	Operating grant; Principal investigator $48,659/yr
	Cellular and molecular mediators of recovery from cerebral cortical damage
1999	CIHR/Canadian Neurotrauma Research Program; Equipment grant; $60,000
	Cellular and molecular mediators of recovery from cerebral cortical damage
1999-2003	Natural Sciences and Engineering Research Council of Canada
	Discovery grant; Principal investigator; $96,600
	Cellular and molecular mechanisms involved in cerebral cortical development and plasticity
1999	Natural Sciences and Engineering Research Council of Canada
	Cellular and molecular mechanisms involved in cerebral cortical development and plasticity; Equipment grant; $31,197
1999	University of Calgary, Research Excellence Envelope; Startup grant; $20,000
1998-1999	University of Calgary Research Grants; Starter grant; $10,000
	Role of zinc in cortical plasticity
1998-1999	Charles River Animal Grant, $3500.

Administrative/Committee Experience

i) Service to Discipline

2025-2027	President, International Society for Zinc Biology
2025-2026	Chair, ISZB 2026 Meeting Scientific Committee
2025	Panelist, Advocacy Session Canadian Association for Neuroscience Meeting
2024-2027	Board of Directors, Canadian Council on Animal Care

2024-2027	Governance & Nominations Committee, Canadian Council on Animal Care
2024-2025	Member, CIHR Grant Selection Committee (BS-C)
2024-2025	Guest Editor, Proceedings of ISZB mgt, Journal of Trace Elements in Medicine and Biology
2023-2025	President-Elect, International Society for Zinc Biology
2023-2024	Special Issue Editor, Cells, Role of Zinc in Brain Homeostasis and Neurological Disorders
2021-2024	Board of Directors, Canadian Council on Animal Care
2021-2024	Governance & Nominations Committee, Canadian Council on Animal Care
2021–2024	Member; NSERC Discovery Grant Selection Committee (1502)
2021-2025	International Society for Zinc Biology (ISZB); Publication/advertising committee
2020–present	Associate Editor; Frontiers in Neuroanatomy; Frontiers in Neuroscience
2020-present	Editorial board Member; Brain Disorders
2023	External referee; Imperial College London; Promotion to Reader
2020	External referee; University of Pittsburgh; Chancellor's Research Award adjudication
2020	External referee; University of Pittsburgh; Promotion to Full Professor
2020	External referee; Carleton University; Promotion to Associate Professor
2019-2021	Member; CIHR Grant selection committee (BS-A)
2018	Scientific Officer; CIHR Project Grant selection committee (BS-A)
2017	Scientific Officer; CIHR Project Grant selection committee (BS-A)
2015–2016	Grant review; CIHR Foundation Grant competition
2015-present	Editorial board; Developmental Neuroscience
2015–2020	Editorial board; Frontiers in Neuroscience
2015-2018	Editorial board; Biomedicine Hub
2015- 017	Member; ISZB Meeting Organization Committee
2014	Reviewer; NSERC E.W.R. Steacie Fellowships
2014	External reviewer; University of Manitoba NSERC discovery grants
2013-2015	Invited Member; CIHR Grant selection committee (BS-A)
2011-2014	Member; NSERC Discovery Grant Selection Committee (Genes, Cells and Molecules)
2011-2016	Editorial/review board; Alzheimer's & Dementia
2011-2015	Editorial board member; Neural Plasticity
2010-2012	Board member; International Society for Zinc Biology (ISZB)
2010-2012	Member; ISZB Membership committee
2010-2012	Member; ISZB Publication/advertising committee
2010-2011	Invited member; CIHR Grant selection committee (BS-C)
2010-2014	Member; AIHS postdoctoral fellowship committee
2009	Chair; NSERC Doctoral Prize committee
2009	Symposium chair/organizer; International Society for Zinc Biology meeting
2008	External referee; McMaster University; Tenure evaluation
2007-2014	Editorial board; Frontiers in Neuroscience
2007-2010	Member; CIHR Grant selection committee (BS-A)
2007	Member, CSBBCS Graduate student award committee
2007-2008	Co-organizer/host; Inaugural meeting of the International Society for Zinc Biology
2006-2008	Editorial board; Debates in Neuroscience
2006-2009	Member; Heart & Stroke Foundation of Canada Fellowships Committee
2006-2007	Committee chair; NSERC GSC-12
2004-2007	Member; NSERC Grant Selection Committee (GSC-12)
2001-2006	Co-organizer; Spring Conference on Behaviour and Brain
1999-2004	Co-organizer; Alberta Neuroscience Meeting

ii) University Service

2025-2026	Member, Dept Psychology Graduate Program Committee
2024-	Member, Dept Psychology Position Allocation Committee
2024-	Member, Dept Psychology Space Committee
2024-	Member, UCARE Executive Committee
2024-	Member, MDSH Working Group Committee (vivarium spaces)
2024-2025	Member, Faculty Tenure and Promotion Committee (Dean's appointee)
2025	Chair, HBI PhD Awards Committee
2025	Poster Judge, Owerko Conference
2024	Member, One Child Every Child Strategic Catalyst Award Review Committee
2023	Chair, HBI PDF Awards Committee
2023	Member, HBI MSc Graduate Awards Committee
2023	Member, Unit Review Committee, Dept of Geography
2023	Member, Strategic High Value Hire Committee; Neurodevelopment
2023	Member, Azrieli Foundation Catalyst Grant Review
2022-2023	Member, Faculty Tenure and Promotion Committee (Dean's appointee)
2021–2025	Chair, Life and Environmental Sciences Animal Care Committee
2018-2025	Member, University Animal Welfare Committee
2018–2021	Member, Life and Environmental Sciences Animal Welfare Committee
2018–2021	Co-chair, Life and Environmental Sciences Animal Care Committee
2017-2018	Associate Head, Department of Psychology
2017–2018	Member, Dept. Psychology Executive Committee
2017-2018	Director, Psychology Graduate Program
2017–2018	Member, Faculty of Graduate Studies Council
2017-2018	Member, Professional Development Workshop Committee
2017-2018	Chair; NSERC CRC Tier II Search Committee
2017	Member; Banting Postdoctoral Scholarship Adjudication Committee
2017	Member; I3T Postdoctoral Scholarship Review Committee
2016-2017	Member; Dept Neuroscience Graduate Scholarship Review Committee
2016-2017	Member; Dept Psychology Headship Search Committee
2016-2018	Member; Faculty of Arts Executive Committee
2016-2017	Member; Dept Sociology Search Committee
2016-2017	Member Dept Psychiatry Neurostimulation Search Committee
2015	Member; University Promotion Review Committee
2015-2016	HBI Postdoctoral Scholarship Selection Committee
2015	Search Committee Member; Behavioural Neuroscience
2014-2015	Faculty of Graduate Studies; Graduate Awards Committee
2014	Psychology Dept Faculty Planning Committee
2013-2014	Member; Animal Care Master Planning committee
2013	Member; Academic Appt Review Committee, Schulich School of Engineering
2013-2014	Member; University Postdoctoral Advisory Committee
2012-2014	Chair; Developmental Neuroscience Search Committee
2012-2015	Neural Systems & Behavior Research Theme Leader, Hotchkiss Brain Institute
2012-2015	Member; Strategic Research Initiatives Committee, Hotchkiss Brain Institute
2012	Search Committee Member; Brenda Strafford Chair in Alzheimer Research
2012	HBI Internal Grant Review
2012	ACHRI Internal Grant Review
2012	Member; Academic Appt Review Committee, Faculty of Kinesiology
2012, 2013	Member; Academic Appt Review Committee, Schulich School of Engineering

2012	Member; Faculty Promotion Committee, Schulich School of Engineering
2012-2014	Search Committee Member; CRC in Child and Youth Mental Health
2012	Panel Member; Faculty of Arts CIHR workshop
2010-2012	Faculty Representative; Emergency Response Planning Committee
2010-2012	Member; Life Sciences Animal Care Committee
2010	Member, Dept. Psychology Head Selection Committee
2010	External Member, Dept. Biology Tenure Committee
2010	Member, Dept. Psychology Position Allocation Committee
2009-2012	Member, Faculty of Graduate Studies Academic Planning Committee
2009-2010	Member; Snyder Institute Inflammation/Pain Search Committee
2009-2010	External Member; Haskayne Academic Appointment Review Committee
2008	Member; Academic Appointment Review Committee
2008-2015	Member; B.Sc. Neuroscience Education Committee
2007	Member; HBI Postdoctoral Fellowship Review Committee
2006-2013	Director, Psychology Graduate Program; Dept. Psychology
2006-2013	Member; Dept. Psychology Executive Committee
2006-2013	Member; Faculty of Graduate Studies Council
2006-2007	Member; Dept. Psychology Merit/Performance Review Committee
2006-2009	Provost's delegate; Selection Committee for Chair in Molecular Epidemiology
2006	Member; Ad hoc disciplinary cmte. Clinical Psychology Graduate Program
2005-2008	Member; B.Sc. Neuroscience Executive Committee
2005-2013	Member; Dept Psychology Web committee
2004	Member; HBI, Neuroinflammation Search Committee
2004	Member; HBI, Neural Cell Survival Scientist Search Committee
2004	Co-organizer; Calgary Brain Institute (HBI) Research Day
2004	Chair; Dept. Psychology; Behavioural Neuroscientist Search Committee
2003-2009	Member; AHFMR, Travel Awards Subcommittee
2003-2004	Weekly seminar coordinator; Behavioural Neuroscience Research Group
2003-2005	Member; URGC Graduate Awards Subcommittee
2003	Member; Clinical Neuroscience/Neurology Stroke Search Committee
2002-2004	Member ; Dept. Psychology Performance Review Committee
2002	Co-organizer; Neuroscience Research Group Annual Research Day
2002	Member; Clinical Neuroscience, MRI Scientist Search Committee
2001	Member; NRG, Retinal Physiologist Search Committee
2000-2004	Member; Life Sciences Animal Care Committee
2000-2006	Member; Dept. Psychology, Graduate Program Committee
2000	Member; Neuroscience Research Group, Physiology Search Committee
1999-2006	Member; Novartis Chair in Schizophrenia Research Committee
1999	Member; Neuroscience Research Group, Physiology Search Committee
1998-2001	Weekly Seminar Coordinator; Behavioural Neuroscience Research Group
1998-2000	Member; Dept. Psychology Performance Review Committee

Ad Hoc Reviewer

Journals

ACS Chemical Neuroscience
Behavioural Brain Research
Biology of Sex Differences
Brain, Behaviour, and Immunity
Brain Research
Brain Research Bulletin
Brain Research Protocols
Brain Structure & Function
Canadian Journal of Neurological Sciences

Canadian Journal of Pharmacology
Canadian Journal of Physiology and Pharmacology
Cerebral Cortex
Current Neuropharmacology
Debates in Neuroscience
Developmental Brain Research
Developmental Neurobiology
Developmental Neuroscience
Developmental Psychobiology
eLife
European Journal of Neuroscience
Experimental Neurology
Frontiers in Cellular Neuroscience
Frontiers in Neuroscience
Future Neurology
Hippocampus
Int Journal of Developmental Neuroscience
Journal of Chemical Neuroanatomy
Journal of Comparative Neurology
Journal of Neurobiology
Journal of Neurochemistry
Journal of Neurophysiology
Journal of Neuroscience
Journal of Neuroscience Methods
Journal of Trace Elements and Minerals in Medicine and Biology
Nature Neuroscience
Molecular Neurobiology
Neural Plasticity
Neurobiology of Aging
Neurobiology of Disease
Neuropsychopharmacology
NeuroReport
Neuroscience
Neuroscience & Biobehavioral Reviews
Physiology & Behavior
PLOS One
Proceedings of the National Academy of Science
Psychoneuroendocrinology
Psychopharmacology
Public Health Nutrition
Toxicology and Applied Pharmacology
Science Advances

ii) **Granting Agencies**
Alzheimer Society of Canada
Alzheimer Association (USA)
Canadian Foundation for Innovation
Canadian Institutes of Health Research
Fragile X Society of Canada
Heart & Stroke Foundation of Canada
Hospital for Sick Children Research Foundation
Israel Science Foundation
Manitoba Health Research Foundation
Michael Smith Foundation for Health Research
Medical Research Council of Canada
Medical Research Council, UK
National Science Center, Poland
National Science Foundation
Natural Sciences and Engineering Research Council of Canada
Saskatchewan Health Research Foundation
Scottish Rite Charitable Foundation
Wellcome Trust

Teaching

2019-present	Psychology 720, HBI Seminars
2013–present	Psychology 750, Clinical Pharmacology
2009-present	Psychology 531, Nervous System Development
2006-present	Psychology 475, Behavioural Pharmacology
2004-2009	Psychology 507/511, Calgary/RDC Introduction to Brain Development
2003	Psychology 604, Advanced Physiological Psychology
2002-2012	Psychology 375, Brain and Behaviour
2001-2010	Psychology 631, Nervous System Development
1998-2004	Psychology 476, Physiological Psychology
1998-2001	Psychology 371, Behavioural Neuroscience
1998	Psychology 3605, ULethbridge, Research Methods in Neuroscience
1997-1998	Psychology 3650, ULethbridge, Drugs, Hormones and Behaviour
1995-1997	Woods Hole, Neural Systems and Behavior

Mentorship

i) **Postdoctoral Fellows (fellowship support) - current position**

Simon Spanswick 2010-2013 (AIHS/HBI; CIHR) – Teaching Professor, UCalgary

ii) **Graduate Students (scholarships held) - current position**

Georgia Brunicke	MSc 2025-27	Psychology
Catherine Schmidt	MSc 2024-26	Psychology
Zöe Kruschke	PhD 2024	Psychology (withdrawn)
Linda Le	PhD 2023-27	Psychology
Selena Fu	PhD 2022-26	Psychology (NSERC, Killam)
Ashley Hodgins	MSc 2022	Psychology (withdrawn)
Linda Le	MSc 2021-23	Psychology
Selena Fu	MSc 2020-22	Psychology (NSERC)
Alexandra DeBusschere	MSc 2019-21	Psychology (NSERC) – Lab technician
Mariya Markovina	MSc 2018-21	Psychology - Biotech
Katy Sandoval	MSc 2018-20	Psychology (QEII) – PhD program, McMaster
Nicoline Bihelek	MSc 2016-18	Psychology (QEII) – Pharmacy, UBC
Sarah Thackray	PhD 2015-20	Psychology (QEII) – Professor, St. Mary's University
Brendan McAllister	PhD 2014-18	Psychology (NSERC, Killam) - PDF UCalgary
Veronika Kiryanova	PhD 2011-17	Psychology (NSERC; AIHS; CIHR/ACHRI)
Jacqueline Boon	MSc 2015-16	Psychology (CIHR) – MD, Victoria
Sarah Thackray	MSc 2013-15	Psychology (QEII) - PhD Program
Michael Chrusch	PhD 2012-15	Neuroscience (NSERC, QEII) – MD, Internal Medicine, Calgary
Taryn Bemister (Co)	PhD 2010-14	Clinical Psychology (AIHS; CIHR) - Clin Psychologist, AHS
Brendan McAllister	MSc 2012-13	Psychology (NSERC) – PDF ULeth
Patrick Wu	PhD 2010-13	Psychology (QEII) - Professor, Red Deer College
Veronika Kiryanova	MSc 2009-11	Psychology (NSERC; AIHS/HBI) - PhD Program
Amy Nakashima	PhD 2007-11	Psychology (NSERC; AHFMR/AIHS) - MD, Calgary
Irene Liu	MSc 2009-10	Clinical Psychology (CIHR) - Clin Psychologist
Taryn Bemister	MSc 2008-10	Clinical Psychology (AHFMR; CIHR) - PhD Program
Carlie Duke	MSc 2006-08	Neuroscience (NSERC) - MD, Edmonton
Catherine Phillips	MSc 2006-08	Psychology (NSERC) - College Professor, San Antonio
Dana Ross	MSc 2004-08	Neuroscience (CIHR, LIM) – Psychiatrist, Toronto
Sherri Galasso	MSc 2004-07	Neuroscience (NSERC, CGS) - MD, Saskatoon
Amy Nakashima	MSc 2005-07	Psychology (NSERC) – PhD program, UCalgary
Kimberley Maxwell	PhD 2003-07	Neuroscience (FCAR, NSERC, HSF/CIHR)- Science Writer
Avril Keller	MSc 2004-06	Psychology (NSERC, CGS) - Clinical Psychologist
Craig Brown	PhD 2001-04	Psychology (AHFMR, NSERC, Governor General's Gold Medal) – Professor, UVictoria
Neale Melvin	PhD 2002-04	Neuroscience (AHFMR) - Professor, UManitoba
Suresh Subramaniam	MSc 2000-02	Neuroscience (CSN) – MD/Neurologist, Calgary
Sam Lazareck	MSc 2000-02	Psychology (NSERC) - MD, Winnipeg
Craig Brown	MSc 1999-01	Psychology (NSERC) – PhD program
Jayne Hutchinson (Co)	MSc 1998-00	Psychology (NSERC) - Mental Health Care, Calgary

iii) Honours (BSc) Students Supervised or Co-supervised (current position)

Megan Wellbrock 2025-26 Laura Peng 2025-26

Justin Pho	2025-26
Lucia Estrada	2025-26
Grace Boser	2024-25
Brooke Floyd	2024-25
Heather Dirschl	2023-24
Tatsuya Hansen	2023-24
Riley Fedoruk	2023-24
Sandra Amin	2022-23
Victoria Melts	2022-23 (MSc)
Nicole Larson	2021-22 (MSc; MD)
Lauren Rusk	2021-22 (Public Hlth Agency)
Carlie Wlad	2020-21 (CMMB)
Linda Le	2020-21 (MSc, PhD)
Ashley Cho	2020-21 (AB Ctr Toxicol)
Matthew Dawson	2019-20 (MSc, PhD)
Selena Fu	2019-20 (MSc, PhD)
Angela Pochakom	2019-20 (MSc)
Ali Abdullah	2018-19 (MD)
Alison Wong	2018-19 (Optometrist)
Colten Chipak	2017-18 (MSc, PhD)
Sukhjinder Rehal	2017-18 (DVM)
Sarah Bryden	2016-17 (DVM)
Lisa Wilcox	2015-16 (MD)
Nicoline Bihelek	2014-15 (MSc Pharm)
Corrine Stahl	2014-15 (Couples Coach)
Jacqueline Boon	2013-14 (MD)
Payal Patal	2013-14 (Business owner)
Michaela Iverson	2012-13 (MD)
Emily Macphail	2012-13 (MD/PhD)
Michael Smith	2012-13 (MSc)
Sara Meunier	2011-12 (MD, Psychiatry)
Michael Chrusch	2010-11 (MD, Int. Med.)
Brendan McAllister	2010-11 (PDF)
Jennie Kozak	2009-10 (Res Asst AHS)
Aida Raissi	2009-10 (MD, Psychiatry)
Lesley Santos	2008-09 (Clin Psych)
Martin Dronyk	2007-08 (MD)
Alexis Schaink	2007-08 (Public Hlth Epi)
Samapti Samapti	2006-07 (MD)
Ciara Toole	2006-07 (Lawyer)
Nicole Vicenzino	2006-07 (DDS)
Nathan Myhill	2004-05 (MD)
Amy Nakashima	2004-05 (MD)
Adrianne Boonstra	2003-04 (EMS)
Sherri Galasso	2003-04 (MD)
Kendra Laustsen	2003-04 (CGY Police)
Nimet Maherali	2003-04 (PhD)
Bonita Ma	2002-03 (technician)
Amy Baxter	2001-02 (Reg Clin Psych)
Maribeth Faustino	2001-02
Laura Craig	2001-02 (DVM)
Kathleen Radford	2001-02 (Lawyer)
Simon Kassem	2000-01 (Teacher)
Christina Heinrich	2000-01 (AHS)
Isaac Bogoch	1999-00 (MD)
Clinton Joseph	1999-00 (IT/OT Tech Lead)

iv) Summer (unless otherwise specified) Research Students Supervised & scholarship held

Lucia Estrada	2025	BNsci
Justin Pho	2025	BNsci
Brooke Floyd	2024	
Laura Peng	2024	NSERC
Catherine Schimdt	2024	
Cleo Hendrickson	2023	504
Riley Fedoruk	2023	PURE
Heather Dirschl	2023	
Samarpreet Singh	2022-23	
Sandra Amin	2022, 23	BNSci
Tatsuya Hansen	2022, 23	BNsci, NSERC
Victoria Melts	2022, 23	BHSci, AIHS
Liam King	2021	
Nicole Larson	2021	NSERC USRA
Linda Le	2021	AIHS
Kira Palanca	2021	BNSci
Lauren Rusk	2021	BHSci
Lynn Tan	2021	BNsci
Simran Chahal	2020, 21	BNsci (MITACS)
Ashley Cho	2020, 21	BHSci
Linda Le	2020	
Carlie Wlad	2020	
Selena Fu	2019	
Kira Palanca	2019	AIHS
Angela Pochakom	2019	BNsci
Selena Fu	2019W	
Nicole Niewinski	2019W	
Selena Fu	2019/01	
Madison Wilson	2019/01	
Nicole Niewinski	2018/10	
Sarah Bryden	2018	
Ali Hassan	2018	PURE
Angela Pochakom	2018	NSERC USRA
Andrea Herzog	2018/1-8	NSERC USRA
Abril V.-Rascon	2017	MITACS (Mexico)
Colten Chipak	2017	BNsci
Sukhjinder Rehal	2017	BranchOut
Brenda Garcia	2016	MITACS (Mexico)

Sarah Bryden	2016	PURE
Sarah Bryden	2015	PURE
Lisa Wilcox	2015	PURE
Nicoline Bihelek	2015	NSERC USRA
Jacqueline Boon	2014	PURE, BNSci
Nicoline Bihelek	2014	NSERC USRA
Winnie Nagesh	2014	
Corrine Stahl	2014	
Alison Barneto	2013	BNsci
Emily Macphail	2013	BHSci, Branch Out
Payal Patel	2013	BNsci
Jacqueline Boon	2012	PURE, BNSci
Julie Ioffe	2012	BNsci
Michaela Iverson	2012	NSERC USRA
Sara Meunier	2012	CIHR
Michael Smith	2012	BNSci
Sara Meunier	2011	CIHR
Brendan McAllister	2011	NSERC USRA
Michael Smith	2011	BNSci
Aida Raissi	2010	BHSc
Michael Smith	2010	BNSci
Sarah Engbers	2009	PURE
Jennie Kozak	2009	NSERC USRA
Aida Raissi	2009	BHSc
Vivian Ngyuen	2008	BHSc
Nadya Rustandaja	2008	PURE
Leslie Santos	2008	NSERC USRA
Christopher Spiker	2008	NSERC USRA
Alexis Schaink	2007	AHFMR, NSERC USRA, PURE
Samapti Samapti	2006	NSERC USRA
Ciara Toole	2006	NSERC USRA
Carlie Duke	2005	SSCP
Amy Nakashima	2005	AHFMR
Sherri Galasso	2004	CSN, AHFMR
Kendra Laustsen	2004	SSCP
Nimet Maherali	2004	NSERC USRA
Sherri Galasso	2003	NSERC USRA
Rae Kokotailo	2003	SSCP
Amy Baxter	2002	NSERC USRA
Kathleen Radford	2002	CSN
Brandi Acker	2001	
Amy Baxter	2001	NSERC USRA
Janay Coleman	2001	NSERC USRA
Jodi Edwards	2001(co)	AHFMR
Steven Skitch	2001	Carlos Ogilvie Fdn for Schizophrenia Research
Amy Baxter	2000	NSERC USRA
Isaac Bogoch	2000	NSERC USRA
Isaac Bogoch	1999	AHFMR, CIHR
Kevin MacDonald	1999	NSERC USRA

v) Grade School Research Students Supervised/Mentored

Alex Chau	2022-23	(grade 11); Gold medal CYSF
Chloe Brodie	2021-22	(grade 11); Silver medal; both CYSF and National;
Maitri Shah	2019-20	(grade 10); National and CYSF ribbon; Harvard
Elise Gosse	2018-19	(grade 12); UAlberta (Dr. Brad Kerr)
Imama Khalid	2018-19	(grade 11); Silver medal CYSF
Elise Gosse	2017-18	(grade 11; Runner up, Neuroscience award; CYSF
Agam Aulakh	2016-18	(grade 9-11); UCalgary, software/biomedical engineering
Purnoor Tak	2015-16	(grade 10-12); Ugrad UofT (Rotman); PhD student London Business School
Nahanni Musiani	2015	(winner CYSF; Gr 5-6 category)
Kael Eisen	2015	(winner CYSF; Gr 5-6 category)

vi) Graduate Student Committees

Supervisory (**SC**); Thesis Examination (**TE**); PhD Candidacy Examination (**PCE = Field of Study Examination, FoS**)

Completed: **Armstrong, Carol**; PhD; **PCE.** The role of HSP in the development of cerebellar compartments. UCalgary (Nsci) 1999. **Bjorgum, Micki**; MSc; **PCE.** Learning and memory in simple systems. UCalgary (Nsci) 1999. **Julyan-Gudgeon, John**; MSc. **TE.** Nitric oxide and form-deprivation myopia. UCalgary (Nsci), 1999. **Ozol, Khan**; PhD; **TE.** The anatomy and development of cerebellar compartments in the mouse. UCalgary (Nsci) 1999. **Welder, Andrea**; MSc. **SC, TE.** What promotes

inductive inferences in infancy? Generalizing knowledge about non-obvious object properties. UCalgary (Psyc) 1999. **Bharadia, Vinay**; MSc; **SC, TE.** The search for the homeobox-containing gene Tlx-2 in chick and its possible role in hindbrain connectivity. UCalgary (Nsci) 2000. **Diskin, Katherine M.**; MSc;**TE.** Psychophysiological arousal in problem and non-problem video lottery gamblers. UCalgary (Psychiatry) 2000. **Hutchinson, Jayne**; MSc; **SC, TE.** Electrical stimulation after cortical injury enhances cell proliferation in the adult rat cortex. UCalgary (Psyc) 2000. **Pollock, Natasha**; PhD; **PCE.** UCalgary(Nsci) 2000. **Valentine, Pamela A**.; PhD; **PCE.** UCalgary (Psyc) 2000. **Melvin, Neal** ; MSc; **SC, TE.** Trk receptor homologs in *Lymnaea*. UCalgary (Nsci) 2001. **Gharbadie, Omar**; MSc; **TE.** ULethbridge(Psyc & Nsci) 2002. **Holyk, Gregory**; MSc; **SC, TE.** Phonological assembly and reader experience.UCalgary (Psyc) 2002. **Luft, W. Alana**; MSc; **SC, TE.** Responses of dopaminergic retinal amacrine cells to growth-regulating visual stimuli. UCalgary (Nsci) 2002. **Ormond, Wayne**; PhD candidate, **PCE.** UCalgary (Psyc) 2002. **Regehr, Cameron**; MSc; **TE**, neutral chair. Discourses of control in aboriginal suicide prevention. UCalgary (Psyc) 2002. **Sharp, Crystal R**.; MSc; **SC, TE.** The role of inhibitory competition in activation-based models of word identification. UCalgary (Psyc) 2002. **Turner, Juanita**;MSc; **SC, TE.** The effect of planning on pre-schooler's reality monitoring errors. UCalgary (Psyc) 2002. **Welder, Andrea**; PhD; **SC, PCE, TE.** The effect of animacy cues and labels on infants' categorization of novel objects with similar outsides or similar insides. UCalgary (Psyc) 2002. **Flynn, Corey**;MSc; **SC, TE**. An investigation in the epileptogenic-prone (FAST) and epileptogenic-resistant (SLOW) rat strains (Psyc) 2003. **Alcuino, Dulce**; left MSc pgm; **SC.** The regulation of eye growth by accutane and retinoic acid. UCalgary (Nsci). **Elbaum, Lindsay**; left MSc pgm; **SC.** Analysis of the regulatory region of the orphan nuclear receptor ROR-b. UCalgary (Nsci) 2004. **Sangha, Susan**; PhD; **SC, PCE.** Learning and forgetting in the pond snail (*Lymnaea stagnalis*). UCalgary (Nsci) 2004. **Warren, Dan**; MSc; **SC**,Neurotoxicity of tissue plasminogen activator (Nsci) 2004. **Andersen, Linda**; PhD ; **SC, PCE, TE.** *In vivo* potential of neural progenitors in the lesioned striatum. UCalgary (Nsci) 2005. **Ayotte, Anne-Lyn**;MSc; **SC, TE**, Flicker and deprivation myopia. UCalgary (Nsci) 2005. **Brooks, Brian**; PhD; **SC, PCE, TE**. Psychometric assessment of patients following traumatic brain injury. UCalgary (Psyc) 2005. **Douglas, Erin**; MSc; **SC,** Application of fMRI in the evaluation of stroke recovery. UCalgary (Nsci) 2005. **Goertzen, Crystal**; MSc candidate; **SC**. An examination of electrophysiological correlates of motor learning, long-term potentiation and kindling. UCalgary (Psyc) 2005. **Melvin, Kyle**; MSc; **SC, TE**. An analysis of functional reach in Parkinson's and Huntington's Disease. UCalgary, (Nsci) 2005. **Sarna, Justyna**; MD/PhD; **SC, PCE, TE.** Compartmented cell death in the mouse cerebellum. UCalgary(Nsci) 2005. **Spanswick, Simon**; MSc; **TE**. A behavioural analysis of visual pattern separation ability by rats: Effects of damage to the hippocampus. ULethbridge (Psych & Neurosci) 2005. **Wang, Amber**;MSc, **SC, TE**, Effect of blood pressure changes on fMRI. UCalgary (Nsci). 2005. **Balasubramaniam,Janani**; Ph.D. **TE**. Effect of destruction of germinal matrix by intracerebral hemorrhage in immature rodent brain. UManitoba (NSci) 2006. **MacLellan, Crystal**; Ph.D. **TE**. Hemorrhagic stroke. UAlberta (Psyc) 2006. **Subramaniam, Rae**; MSc candidate; **SC**, Magnetization Transfer Imaging of neonatal rats with rather selective hypoxic-ischemic White Matter Injury or Gray matter injury. UCalgary (NSci) 2006. **Chen, Yuanyuan**; MSc; **SC**, Role of matrix metalloproteinases in axon guidance. UCalgary (Nsci) 2007. **Kelly, Melissa**; PhD; **TE**. Matrix metalloproteinase activation downstream of tPA thrombolysis and the effects on the blood-brain barrier. UAlberta (Nsci) 2007. **Wang, Qianzhou**; MSc, **SC, TE**. Corticofugal modulation of frequency tuning in the cochlear nucleus of the mouse. UCalgary (Nsci) 2007. **Flynn,Corey**; PhD; **SC, PCE, TE**. Plasticity in epileptogenic-prone (FAST) and epileptogenic-resistant (SLOW) rat strains. UCalgary (Psyc) 2007. **McDonald, David**; PhD; **SC, PCE.** Promoting recovery after peripheral nerve injury. UCalgary (Nsci) 2007. **Climie, Emma**; MSc; **SC, TE**. Cognitive flexibility in bilingual preschool children. UCalgary (Psyc) 2008. **Rakai, Brooke**; MSc ; **TE**. ULethbridge (Nsci) 2008. **Chalmers, Trudi**; PhD ; **SC, PCE**, **TE** Growth factor stimulated functional improvement following cortical ischemia. UCalgary (Nsci) 2009. **Higgins, Laura**; MSc; **TE**. Action centered attention: The influence of attentional set and action affordance. (Kines) 2009. **Langevin, Lisa Marie**; PhD; **SC, PCE, TE**. Transcriptional regulation of neocortical development. UCalgary (Nsci) 2010. **Vuon, Jennifer**; MSc,

SC, TE. Effects of perinatal fluoxetine on motor cortex organization. UCalgary (Psyc) 2010. **Erin Prosser-Loose**; **TE**. Effects of protein-energy malnutrition in two models of global cerebral ischemia. USaskatchewan (Pharm & Nutrition) 2010. **Christie Schmidt**; **TE**. Sensorimotor integration in healthy elderly during multi-digit grasping. UCalgary (Kines) 2010. **Shideler, Karalee**; MSc, **SC, TE**. Immunohistochemical characterization of the primary auditory cortex in mice. UCalgary (NSci) 2011. **Abraham, Nachum**; MSc, **SC**. Effects of manipulating parental care on adult neurogenesis. UCalgary (NSci) 2011. **Henderson, Amy**; PhD candidate, **SC, PCE, TE**. Effects of seizures on cortical maps. UCalgary (Psyc) 2011. **Liu, Irene**; MSc, **SC, TE**. Age and gender differences in various topographical orientation strategies. UCalgary (CPsyc) 2011. **Ted Slone**; MSc, **TE** (NSci) 2011. **Shaker, Tarek**; MSc, **SC, TE**. Epigenetic modifications of Neurogenin target genes. UCalgary (Nsci) 2011. **Scullion, Kathleen**; MSc; **SC, TE**. The role of serotonin in the expression of cortical motor maps. UCalgary (Nsci) 2012. **Lam, Erin**; PhD; **PCE**. Schwann cells in demyelinating disease. (Nsci) 2013. **Rakai, Brooke**; PhD; **SC, PCE, TE**. The role of circadian rhythms in stroke severity and recovery. UCalgary (Psyc) 2013. **Smith, Jackie**; MSc; **TE**. Dietary treatment and pharmacological intervention for core behaviours in the BTBR T+Itpr3/J mouse model of autism. UCalgary (Nsci) 2013. **Brown, Andrew**; PhD; **SC, PCE, TE**. Functional neocortical movement encoding in the rat. UCalgary (NSci) 2013. **Qinbo Deng**; MSc; **SC, TE**. Development and characterization of a novel model of recurrent stroke. UCalgary (NSci) 2014. **Kathrin Koblinger**; PhD; **PCE**. The contribution of the A11 hypothalamospinal dopaminergic system to locomotion. UCalgary (NSci) 2014. **Yamakawa, Glenn**; PhD; **SC, PCE, TE**. The role of wake related neurotransmitter systems in behavioural resetting of the circadian clock. UCalgary (Psyc) 2014. **Allegra Courtright**; MSc; **TE**. Aerobic Exercise and hippocampal plasticity in youth with depression. UCalgary (NSci) 2014. **Ally Faran**; MSc; **TE**. Genetic susceptibility to poor outcomes in mild traumatic brain injury. UCalgary (NSci) 2014. **Anna Singleton**; MSc; **SC, TE**. The development of complex movement motor maps using long-duration intracortical micro-stimulation in rats. UCalgary (Psyc) 2014. **Haley Vecchiarelli**; MSc; **SC, TE**. Temporal mapping of acute stress-induced central and circulating cytokine production. UCalgary (Nsci) 2014. **Wulin Teo**; PhD; **TE**. Mechanisms of central axon and myelin injury using advanced morphological and biochemical characterization. UCalgary (Nsci) 2015. **Collin Luk**; PhD; **TE**. Mechanisms of synapse formation and synaptic plasticity. UCalgary (Nsci) 2015. **Mark Krongold**; MSc; **SC, TE**. Developmental trajectories of brain networks assessed by structural MRI. UCalgary (BME) 2015. **Nichole Flynn**; PhD; **TE**. Postsynaptic mechanisms of trophic factor-induced excitatory synapse formation in *Lymnaea stagnalis*. UCalgary (Nsci) 2015. **Alyssa Mah**; MSc; **TE**. Brain development during childhood and adolescence. UCalgary (BME) 2015. **Charmaine Thomas**; PhD; **SC, PCE, TE**. A prospective study of the relationship between peritraumatic distress and attentional avoidance of trauma-relevant threat in the prediction of posttraumatic stress disorder. UCalgary (CPsyc). **Mahtab Moshirpour;** MSc; **SC, TE**. The role of zinc in circadian networks. UCalgary (Psyc) 2016. **Tristan Hynes**; MSc; **SC, TE**. The contributions of early life adversity, sex, and traits to compulsive opioid self-administration. UCalgary (Psyc) 2017. **Xiaohan Bao**; MSc; **SC**. Spectro-temporal receptive fields constructed on neuronal input and output in mouse auditory cortex. UCalgary (Med) 2017. **Nicole Burma**; PhD; **TE**. Microglial pannexin-1 is a cellular determinant of opioid withdrawalUCalgary (Nsci) 2018. **Vahid Hoghooghi**; PhD; **TE.** Cystatin C and sex dimorphism in experimental autoimmune encephalitis. UCalgary (Nsci) 2018. **Alicia Zumbusch**; MSc; **SC**. The effects of early life adversity on escalation of opioid self-administration in male and female rats. UCalgary (Psyc) 2018. **Giuffre, Adrianna**; PhD; **PCE**. Effects of tDCS and HD-tDCS on motor learning in children. (Medicine) 2018. **Jhenjruthi Vijaya Shankara**; PhD; **SC**, **PCE**, **TE**. Selective inhibition and activation of retinorecipient neurons in the SCN: Effects on circadian behavioural rhythms and gene expression. UCalgary (Psyc) 2019. **Robert Moore**; PhD; **PCE**. Motor learning after stroke. (Nsci) 2020. **Catherine Thomas**; PhD; **SC, PCE**. How are neutral stimuli transformed into incentive stimuli following drug sensitization. UCalgary (Psyc). **Kwako Addo-Osafo**; MSc; **SC, TE.** The role of postictal hypoxia in seizure-induced neurogenesis, dentate gyrus area and ectopic migration of granule cells. UCalgary (Nsci) 2020. **Naila Jamani**; MSc; **SC, TE**. Exploring non-photic influences of acetylcholinesterase inhibitors on the circadian

system. UCalgary (Psyc) 2020. **Krall, Rebecca**; PhD; **external examiner**. A postsynaptic mechanism of zinc transport driving inhibition of NMDA receptors. UPittsburgh (Nsci/Nbiol) 2020. **Alexandria Evans**; MSc; **SC, TE**. The role of newly born neurons in regulating activity in other hippocampal subregions. UCalgary (Nsci) 2020. **Samantha Baglot**; PhD; **PCE**. Effects of prenatal cannabis exposure on perinatal amygdala and immune system development, adolescent social behaviour, and adult stress reactivity. UCalgary (Nsci) 2021. **Jacqueline Reid**; PhD, **PCE**. (NSci) 2020. **Tahereh Rashnavadi**; PhD; **FoS**. Dynamic functional connectivity methodologies for determining brain states associated with temporal lobe epilepsy, 2021. UCalgary (BME) 2021. **Rafal Ameen**; MSc; **SC, TE**. Early life circadian rhythm disruptions alters brain and behavior later in adulthood. UCalgary (Psyc) 2021. **Pauline de Jesus**; MSc; **SC, TE**. Multi-modal assessment of outcomes in pediatric mild traumatic brain injury. UCalgary (Nsci) 2021. **Colleen Peterson;** PhD; **FoS**. The effect of developmental edible cannabis exposure on ventral tegmental area dopamine neuron physiology and motivated behaviour. UCalgary (NSci) 2021. **Raksha Ramkumar**; MSc; **SC, TE**. Effects of early life stress on the orexinergic system. UCalgary (Psyc) 2022. **Matthew Dawson**; MSc; **SC, TE**. Effects of early life stress on the serotonergic system. UCalgary (Psyc) 2022. **Patricia Blakely**; MSc; **SC, TE**. The role of perineuronal nets on function of the suprachiasmatic nucleus. UCalgary (Psyc) 2022. **Katelyn Horsley**; MSc; **SC, TE**. The role of orexin in non-photic phase shifting. UCalgary (Psyc) 2022. **Lauren Seabrook**; PhD; **TE**. The effects of a high-fat diet on lateral orbitofrontal cortex physiology and behaviours. UCalgary (Nsci) 2022. **Savannah Lightfoot**; PhD; **FoS**. Investigating the effects of THC exposure on emotional salience. UCalgary (Nsci) 2023. **Mahtab Moshirpour**; PhD; **SC, FoS, TE**. Neural basis of arousal signaling for non-photic resetting of the circadian clock. UCalgary (Psyc)2023. **Tabitha Festa**; MSc; **TE**. Shox2 in auditory brainstem function. UCalgary (Bio) 2024. **Renaud Gom**; PhD; **TE**. Stress and cannabinoids in seizure-induced emotional comorbidities. UCalgary (NSci) 2024. **Kelsey Harkness**; PhD; **SC, PCE, TE**. Functional connectivity and attention abilities in pediatric populations. UCalgary (Nsci) 2024. **Gregory Hamilton**; MSc; **SC, PCE, TE**. Identifying novel functions of the SHOX homeobox 3 gene within the developing mouse hindbrain. UCalgary (Bio) 2025. **Jenna Geary**; MSc; **SC, TE**. Chronic circadian disruption alters behaviour, cardiac function, and glucose regulation in mice. UCalgary, (Psyc) 2025.

Ongoing: **Emily Macphail**; PhD; **SC, PCE**. Zinc status/supplementation in human adolescent obsessive compulsive disorder. UCalgary (Kines). **Katelyn Horsley;** PhD; **SC**. The role of orexin in non-photic phase shifting. UCalgary (Psyc). **Farzaneh Nobaakht**; PhD; **SC, PCE**. Role of Csde1 in neurodevelopment. UCalgary (Nsci). **Ana Deutsch;** PhD; **SC**. Interactions between psilocybin and the stress response (subjective, neuroendocrine, psychophysiological) in humans. UCalgary (Nsci). **Abdullah Abdullah** ; MSc; **SC**. Investigating auditory processing at the inferior colliculus in a juvenile mouse model of FXS. UCalgary (Nsci). **Daniela Oboh**; PhD; **SC**. Exercise and neurogenesis in tau mice. UCalgary, (Nsci). **Manjusha Goli**; MSc; **SC**. The effect of aversive stimuli on glutamatergic activity in cuneiform neurons. UCalgary (NSc).

Publications

i) Thesis/Dissertation

Ph.D. 1993 University of British Columbia, Graduate Program in Neuroscience.
The ontogeny and functional distribution of novel, neurochemically-defined columns in mammalian visual cortex.

M.Sc. 1988 University of British Columbia, Graduate Program in Neuroscience.
Cytochrome oxidase histopathology in the central nervous system of developing rats displaying methylmercury-induced movement and postural disorders.

ii) Journal Articles (trainees in bold):

87) **Thackray SE**, **Fu S**, **Bryden S**, **Bihelek N**, Lovic V, Dyck RH (in progress) Synaptic zinc modulates the effects of acute and chronic cocaine exposure.

86) **Le LT**, **Boon JM**, **Chrusch MJ**, Spanswick SC, Stratton J, Shah P, Vecchiarelli HA, **Patel P**, Biernaskie J, Hill MN, Dyck RH (in progress) Experience-dependent modulation of adult hippocampal neurogenesis in female mice.

85) **Fu S**, **Cho A**, Spanswick SC, Dyck RH (2023) Zinc modulates cell proliferation and survival in the developing hippocampus. Cells, 12, 880. doi.org/10.3390/cells12060880

84) **Chrusch M**, **Fu S**, **Spanswick SC**, Vecchiarelli HA, **Patal PP**, Hill MN, Dyck RH (2023) Environmental enrichment engages synaptic zinc signaling to enhance hippocampal neurogenesis. Cells, 12, 883. doi.org/10.3390/cells12060883

83) **Spanswick SC**, **Chrusch M**, **Kiryanova V**, Dyck RH (revise, resubmit) Long-lasting effects of transient, perinatal fluoxetine exposure on cell proliferation in the dentate gyrus of mice, Developmental Neuroscience,

82) **Sandoval KC, Thackray SE**, **Wong A**, **Niewinski N**, **Chipak C**, **Rehal S**, Dyck RH (2022) Lack of vesicular zinc does not affect the behavioral phenotype of poly (I:C)-induced maternal immune activation mice, Frontiers in Behavioral Neuroscience, 16:769322. doi:10.3389/fnbeh.2022.769322.

81) **McAllister BB**, **Pochakom A**, **Fu S**, Dyck RH (2020) Effects of social defeat stress and fluoxetine treatment on neurogenesis and behaviour in mice that lack zinc transporter 3 (ZnT3) and vesicular zinc, Hippocampus, 30:623-637. doi: 10.1002/hipo.23185.

80) **McAllister BB**, **Bihelek N**, Mychasiuk R, Dyck RH (2020) Brain-derived neurotrophic factor and TrkB levels in mice that lack vesicular zinc: Effects of age and sex, Neuroscience, 425:90-100. doi: 10.1016/j.neuroscience.2019.11.009.

79) **McAllister BB**, **Thackray SE**, **de la Orta BKG**, **Gosse E**, **Tak P**, **Chipak C**, **Rehal S**, **Valverde Rascon A**, Dyck RH (2020) Effects of enriched housing on the neuronal morphology of mice that lack zinc transporter 3 (ZnT3) and vesicular zinc, Behavioural Brain Research, 379:1-9. doi: 10.1016/j.bbr.2019.112336

79) Moshirpour M, **Nakashima AS**, Sehn N, Smith VM, **Thackray SE**, Dyck RH, Antle MA (2020) Examination of zinc in the circadian system, Neuroscience, 432:15-29. BIORXIV/2019/790352.

78) **McAllister BB**, Wright DK, Wortman RC, Shultz SR, Dyck RH (2018) Elimination of vesicular zinc alters the behavioural and neuroanatomical effects of social defeat stress in mice, Neurobiology of Stress, 9:199-213.

77) **Wu H-P**, Dyck RH (2018) Signaling by synaptic zinc is required for whisker-mediated, fine texture discrimination, Neuroscience, 369:242-247.

76) **Kiryanova V**, Smith VM, Antle MC, Dyck RH (2018) Behavior of adult 5-HT1a receptor knockout mice exposed to stress during development, Neuroscience, 371:16-28.

75) **Kiryanova V**, **Meunier SJ**, Dyck RH (2017) Behavioural outcomes of female offspring following maternal stress and perinatal fluoxetine exposure, Behavioural Brain Research, 331:84-91.

74) **McAllister BB**, Dyck RH (2017) A new role for zinc in the brain, eLife 6:e31816 DOI: 10.7554/eLife.31816

73) **McAllister BB**, Dyck RH (2017) Zinc transporter 3 (ZnT3) and vesicular zinc in central nervous system function, Neuroscience & Biobehavioral Reviews, 80:329-350.

72) **Thackray SE, McAllister BB**, Dyck RH (2017) Behavioral characterization of female zinc transporter 3 (ZnT3) knockout mice, Behavioural Brain Research, 321:36-49.

71) Dennis DJ, Wilkinson G, Li S, Dixit R, Adnani L, Balakrishnan A, Han S, Kovach C, Gruenig N, Kurrasch DM, Dyck RH, Schuurmans C (2017) *Neurog2* and *Ascl1* together regulate a postmitotic derepression circuit to govern laminar fate specification in the murine neocortex. Proceedings of the National Academy of Sciences, 114(25): E4934-E4943.

70) **Kiryanova V**, Smith V, Dyck RH, Antle MA (2017) Circadian behavior of adult mice exposed to stress and fluoxetine during development. Psychopharmacology, 234(5): 793-804.
69) **Kiryanova V**, **Meunier SJ**, Vecchiarelli H, Hill MN, Dyck RH (2016) The effects of stress and perinatal fluoxetine exposure on behavioural outcomes of adult male offspring. Neuroscience, 320:281-296.
68) **Bemister TB**, Brooks B, Dyck RH, Kirton A (2015) Predictors of maternal depression and family functioning after perinatal stroke. BMC Pediatrics, 15(75):1-11.DOI 10.1186/s12887-015-0397-5
67) **Macphail E**, Dyck R (2015) Correlations amongst mental health, cognitive flexibility, and zinc status, Journal of Undergraduate Research in Alberta, 4:7.
66) **McAllister BB**, **Spanswick SC**, **Patel PP**, **Barneto AA**, Dyck RH (2015) The effects of chronic fluoxetine treatment following injury of medial frontal cortex in mice, Behavioral Brain Research, 290:102-118.
65) Rosin JM, **McAllister BB**, Dyck RH, Percival CJ, Kurrasch DM, Cobb JA (2015) Mice lacking the transcription factor SHOX2 display impaired cerebellar development and deficits in motor coordination. Developmental Biology, 399(1):54-67.
64) Smith VM, Jeffers RT, **McAllister BB**, Basu P, Dyck RH, Antle MC (2015) Effects of lighting condition on circadian behaviour in 5-HT1A receptor knockout mice. Physiology & Behavior, 139:136-144.
63) **Bemister TB**, Brooks B, Dyck RH, Kirton A (2014) Parent and family impact of raising a child with perinatal stroke. BMC Pediatrics,14(182):1-11. DOI:101186/1471-2431-14-182.
62) **Kiryanova V**, Dyck RH (2014) Increased aggression, improved spatial memory, and reduced anxiety-like behaviour in adult male mice exposed to fluoxetine early in life. Developmental Neuroscience, 36(5):396-408.
61) Rakai B, **Chrusch M**, **Spanswick SC**, Dyck RH, Antle MC (2014) Survival of adult generated hippocampal neurons is altered in circadian arrhythmic mice. PLoS One, 9(6) e99527.
60) **Kiryanova V***, **McAllister BB***, Dyck RH (2013) Long-term outcomes of developmental exposure to fluoxetine: A review of the animal literature. Developmental Neuroscience, 35:437-449. *co-first authors.
59) Mak GK, Antle MC, Dyck RH, Weiss S (2013) Bi-parental care contributes to sexually dimorphic neural cell genesis in the adult mammalian brain. PLOS One, 8(5):e62701 16 pp.
58) **Wu H-P**, **Ioffe J**, **Iverson MM**, **Boon JM**, Dyck RH (2013) Novel, whisker-dependent texture discrimination task for mice. Behavioral Brain Research, 237:238-242.
57) **Kiryanova V**, Smith VM, Dyck RH, Antle MC (2013) The effects of perinatal fluoxetine treatment on the circadian system of the adult mouse. Psychopharmacology, 225:743-751.
56) **McAllister BB**, **Kiryanova V**, Dyck RH (2012) Behavioural outcomes of perinatal maternal fluoxetine treatment. Neuroscience 226:356-366.
55) **Spanswick S**, Dyck RH (2012) Object/context specific memory deficits following medial frontal cortex damage in mice. PLoS ONE, 7:1-7.
54) Henderson AK, Galic MA, Fouad K, Dyck RH, Pittman QJ, Teskey GC (2011) Larger cortical motor maps after seizures. European Journal of Neuroscience, 43:615-621.
53) **Nakashima AS**, Butt R, Dyck RH (2011) Alterations in protein and gene expression within the barrel cortices of ZnT3 knockout mice: Experience-independent and dependent changes. Neurochemistry International, 59:860-870.
52) **Nakashima AS**, Dyck RH (2010) Behavioral and cognitive abnormalities in 3xTg AD mice. Cognitive Sciences, 5:175-201.
51) **Nakashima AS**, Dyck RH (2010) Dynamic, experience-dependent modulation of synaptic zinc within the excitatory synapses of the mouse barrel cortex. Neuroscience, 170:1015-1019.
50) **Nakashima AS**, Oddo S, LaFerla FM, Dyck RH (2010) Experience-dependent regulation of vesicular zinc in male and female 3xTg-AD mice. Neurobiology of Aging, 31:605-613.
49) **Sterniczuk R**, Dyck RH, LaFerla FM, Antle MC (2010) Characterization of the 3xTg-AD mouse model of Alzheimer's disease: Part 1. Circadian changes. Brain Research, 1348:139-148.

48) **Sterniczuk R**, Antle MC, LaFerla FM, Dyck RH (2010) Characterization of the 3xTg-AD mouse model of Alzheimer's disease: Part 2. Behavioral and cognitive changes. Brain Research, 1348:149-155.
47) **Nakashima AS**, Dyck RH (2009) Zinc and cortical plasticity. Brain Research Reviews, 59: 347-373.
46) **Phillips CI**, Smith VM, Antle MC, Dyck RH (2009) Neonatal medial frontal cortex lesions disrupt circadian activity patterns. Developmental Neuroscience, 31:412-419.
45) **Nakashima AS**, Dyck RH (2008) Enhanced plasticity in zincergic, cortical circuits following exposure to enriched environments. Journal of Neuroscience, 28: 13995-13999.
44) McRory JE, Rehak R, Simms B, Doering CJ, Chen L, Hermosilla T, **Duke C**, Dyck RH, Zamponi GW (2008) Syntaxin 1A is required for normal *in utero* development. Biochemical Biophysical Research Communications, 375: 372-377.
43) Tuor U, Meng S, Qiao M, Webster, N, Crowley S, Dyck RH, Tomanek B (2008) Differential progression of magnetization transfer imaging changes depending on severity of cerebral hypoxic ischemic injury. Journal of Cerebral Blood Flow & Metabolism. 28: 1613-1623.
42) Goli AA, Noorbakhsh F, **Keller AJ**, Vergnolle N, Westaway D, Andrade-Gordon P, Clark AW, Hollenberg MD, Arab H, Dyck RH, Power C (2007) Proteinase-activated receptor-2 exerts protective and pathogenic cell type-specific effects in Alzheimer's disease. Journal of Immunology, 179: 5493-5503.
41) **Galasso SL**, Dyck RH (2007) The role of zinc in cerebral ischemia. Molecular Medicine, 13: 380-387.
40) **Flynn C**, **Brown CE**, **Galasso SL**, McIntyre D, Teskey GC, Dyck RH (2007) Zincergic innervation of the forebrain distinguishes epilepsy-prone from epilepsy-resistant rat strains. Neuroscience,144:1409-1414.
39) Sgado P, Alberi L, **Galasso SL**, Ramakers GMJ, Smidt MP, Dyck RH, Simon HH (2006) Slowprogressive degeneration of nigral dopaminergic neurons in postnatal Engrailed mutant mice. Procedings of the National Academy of Science, USA. 103:15242-15247.
38) Bland BH, Konopacki J, Dyck RH (2005) Heterogeneity among hippocampal pyramidal neurons revealed by their relation to theta-band oscillation and synchrony. Experimental Neurology,195:458-474.
37) **Brown CE**, Dyck RH (2005) Modulation of synaptic zinc in barrel cortex by whisker stimulation. Neuroscience, 134:355-359.
36) **Brown CE**, Dyck RH (2005) Retrograde tracing of the subset of afferent connections in mouse barrel cortex provided by zincergic neurons. Journal of Comparative Neurology, 486:48-60.
35) **Maxwell KA**, Dyck RH (2005) Induction of reproducible focal ischemic lesions in neonatal mice by photothrombosis. Developmental Neuroscience, 27:121-126.
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Refereed Presentations

150) Le LT, Boon JM, Chrusch MJ, Spanswick SC, Stratton J, Shah P, Vecchiarelli HA, Patel P, Biernaskie J, Hill MN, Dyck RH (2025) The role of zinc in experience-dependent modulation of adult hippocampal neurogenesis in female mice. International Society for Behavioral Neuroscience, Tromso, June
149) Le LT, Boon JM, Chrusch MJ, Spanswick SC, Stratton J, Shah P, Vecchiarelli HA, Patel P, Biernaskie J, Hill MN, Dyck RH (2025) Experience dependent modulation of adult hippocampal neurogenesis in female mice. Canadian Association for Neuroscience, Toronto, May.
148) Le LT, Dyck RH (2024) Multiple acute stressors differentially affect ZnT3 knockout mice. International Society for Zinc Biology, Merida, December.
147) Fu S, Cho AT, Dyck RH (2024) Neurogenesis in the developing hippocampus is modulated by vesicular zinc, sex, and age. International Society for Developmental Neuroscience, Montepellier, September.
146) Le LT, Rusk L, Dyck RH (2023) Administering ketamine to rickrolled mice lacking vesicular zinc. Canadian Association for Neuroscience, Montreal, May.

147) Fu S, Cho AT, Dyck RH (2023) Neurogenesis in the developing hippocampus is modulated by vesicular zinc, sex, and age. Canadian Association for Neuroscience, Montreal, May.
145) Festa T, Sullivan CS, Osterwalder M, Dickel DE, Pennacchio LA, Visel A, Dyck RH, Cobb J (2022) Investigating the role of the Shox2 gene desert in mouse limb and brain development. Society for Developmental Biology, Vancouver, July.
144) Le LT, Rusk LN, Dyck RH (2022) The effects of ketamine in a ZnT3 KO mouse model of chronic stress. Canadian Association for Neuroscience, Toronto, May.
143) Fu S, Cho AT, Spanswick SC, Dyck RH (2022) Vesicular zinc modulates cell proliferation and survival in the developing hippocampus. Canadian Association for Neuroscience, Toronto, May.
142) Fu S, Cho AT, Spanswick SC, Dyck RH (2022) Vesicular zinc modulates cell proliferation and survival in the developing hippocampus. International Society for Developmental Neuroscience, Vancouver, May.
141) Sandoval KS, Thackray SE, Wong A, Niewinski N, Dyck RH (2021) The effects of maternal immune activation on mice lacking vesicular zinc. Society for Neuroscience, remote, January.
140) Fu S, Thackray SE, Dyck RH (2020) Acute locomotor effects of cocaine in mice that lack vesicular zinc. International Behavioral Neuroscience Society, remote, July.
139) Sandoval KC, Niewinski N, Wong A, Thackray SE, Dyck RH (2020) The effects of maternal immune activation on mice lacking vesicular zinc. International Behavioral Neuroscience Society, remote, July.
138) Thackray SE, Fu S, Dyck RH (2020). Conditioned place preference is impaired in mice lacking vesicular zinc. International Behavioral Neuroscience Society, remote, July.
137) Mahtab Moshirpour, Richard H. Dyck, Michael C Antle. (2020). Food anticipatory activity in zinc transporter-3 knockout mice. Society for the Research of Biological Rhythms, Amelia Island
136) Hampton K, Jamani N, Shankara JV, Bihelek N, Dyck RH and Antle MC. (2019). An exploration of perineuronal nets in the suprachiasmatic nucleus. Fourth Conference of the Canadian Society for Chronobiology, Montreal, Canada
135) McAllister BB, Wright DK, Wortman R, Shultz SR, Dyck RH (2018) The behavioural and neuroanatomical effects of repeated social defeat stress are altered in mice that lack vesicular zinc. Stress Neurobiology 2018. Banff, AB.
134) McAllister BB, Dyck RH (2018) The neurogenic and behavioural effects of fluoxetine on socially defeated ZnT3 knockout mice. Canadian Spring Conference on Behaviour and Brain. Fernie, BC.
133) Thackray SE, Bryden SS, Bihelek N, Lovic V, Dyck RH (2017, Nov) Synaptic zinc modulates the effects of chronic cocaine exposure. Society for Neuroscience Abstracts. Washington, DC.
132) McAllister BB, Dyck RH (2017, July) The effects of chronic social defeat stress on mice that lack zinc transporter-3. International Behavioral Neuroscience Society, Hiroshima, Japan.
133) McAllister BB, Dyck RH (2017, Feb) The effects of chronic social defeat stress on mice that lack zinc transporter-3. Canadian Spring Conference on Behaviour and Brain. Fernie, BC.
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130) McAllister BB, Dyck RH (2016, Nov) Effects of chronic social defeat stress on mice that lack zinc transporter 3 (ZnT3) and synaptically-releasable zinc. Society for Neuroscience Abstracts. San Diego.
129) Thackray S, McAllister B, Dyck RH (2016, Nov) Behavioral characterization of female zinc-transporter 3 (ZnT3) knockout mice. Society for Neuroscience Abstracts. #12833, San Diego.
128) Fan CY, McAllister BB, Dyck RH, Trang T. (2016, Sept 29) Sex differences in the potentiation of phase II formalin responses in zinc transporter-3 knockout mice. World Congress of Pain Abstracts. Yokohama, Japan.
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122) Dyck RH (2016, Feb) Effects of perinatal fluoxetine exposure on adult hippocampal neurogenesis. Canadian Spring Conference on Behaviour and Brain. Fernie, BC.

121) Thackray S, Dyck RH (2016, Feb) Role of zinc in the striatum. Canadian Spring Conference on Behaviour and Brain. Fernie, BC.

120) Dyck RH (2016, Jan 31) A role for synaptic zinc in adult hippocampal neurogenesis. 28th Annual meeting Winter Conference on Neural Plasticity. Maui, Hawaii.

119) Boon JM, Chrusch MJ, Dyck RH (2015, October) The effects of synaptic zinc, fluoxetine and stress on adult hippocampal neurogenesis. Society for Neuroscience Abstracts, 664.09, Chicago.

118) Fan CY, McAllister BB, Dyck RH, Trang T (2015, October) Potentiation of phase II formalin responses in zinc transporter-3 (ZnT3) knockout mice. Society for Neuroscience Abstracts, 513.19, Chicago.

117) Kiryanova V, Smith VM, Antle MC, Dyck RH (2015,) Effects of perinatal stress and fluoxetine on circadian behaviour of adult mice. Int Soc for Developmental Psychobiology (48th Ann mtg). San Sebastian, Spain.

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11) Cynader MS, Booth V, Liu Y-L, Dyck R, Jia W-G (1990) Input-dependent transient expression of receptor populations in kitten visual cortex development. Society for Neuroscience Abstracts, 16, 798.
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9) Shaw C, Cameron L, Prusky G, Dyck R, Cynader M, Hendrickson A (1989) Pre- and postnatal development of neurotransmitter receptors in monkey visual cortex. Society for NeuroscienceAbstracts, 15, 1336.
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6) Dyck RH, Sutherland RJ, Buday MR (1985) The ontogeny of mapping and non-mapping spatial strategies following neonatal hippocampal damage in rats. Society for Neuroscience Abstracts, 11, 832.
5) Sutherland RJ, Prusky G, Dyck RH, Rodriguez AJ (1985) Impaired spatial mapping after disruption of some rostral connections of the hippocampal system in rats. Society for Neuroscience Abstracts,11, 832.
4) Dyck RH, Sutherland RJ (1984) Place navigation by rats in a swimming pool. Canadian Psychology Abstracts. 25, 140.
3) Dyck RH, Whishaw IQ, Sutherland RJ (1984) Dramatic neurotoxicity of neonatal intracerebralinjection of tubulin-binding agents. Society for Neuroscience Abstracts, 10, 1198.
2) Sutherland RJ, Dyck RH (1983) Hippocampal and neocortical contributions to spatial learning and memory. Society for Neuroscience Abstracts, 9, 638.
1) Whishaw IQ, Dyck RH, Kolb B (1983) Two types of rhythmical slow activity (theta) in the hippocampus of neonatally decorticate rats. Society for Neuroscience Abstracts, **9**, 1197.

Non-refereed presentations (>250 between 1998 and 2025). Not included to conserve space.

Invited Lectures

Dec 2024 Zincergic neurons as mediators of cerebral cortical plasticity. International Society for Zinc Biology, Merida, Mexico.

Mar 2021 What is the impact of the loss of slc30a3 (ZnT3) in mice? MetalZoom! Seminar series for the International Society for Zinc Biology.

Sept 2019 A role for vesicular zinc in galvanizing the synapse: Sex, drugs and mettle. 6th Meeting of the International Society for Zinc Biology, Kyoto, Japan

May 2018 Long-term effects of perinatal SSRI exposure on the brain and behaviour. Developmental Neurosciences Grand Rounds, Alberta Children's Hospital.

June 2017 Neurogenesis and regeneration. Canadian Association of Laboratory Animal Science Symposium. Calgary. Keynote speaker.

June 2016 The effect of perinatal fluoxetine on the adult brain. Dutch Neuroscience 2016. Lunteren, The Netherlands. Keynote speaker.

June 2015 The impact of sex, drugs, and heavy metal on adult hippocampal neurogenesis. Annual Meeting of the International Behavioral Neuroscience Society. Victoria, British Columbia.

Jan 2015 Synaptic zinc is necessary for adult hippocampal neurogenesis. 48th Winter Conference on Brain Research. Big Sky, Montana.

Sept 2014 ZnT3 knockout mice lack mettle. 4th Meeting of the International Society for Zinc Biology. Asilomar, California.

Nov 2013 Zinc galvanizes your thoughts, too. Canadian Centre for Behavioural Neuroscience, University of Lethbridge

Oct 2013 Zinc galvanizes your thoughts, too. Department of Psychology, University of Calgary

Jan 2012 Plasticity related modulation of synaptic zinc in the mammalian somatosensory cortex. 3rd Meeting of the International Society for Zinc Biology. Melbourne, Australia

May 2011 The role of zinc in cortical plasticity: Testing its mettle. Canadian Association for Neuroscience (Quebec City)

May 2010 Cellular and molecular characterization of neural regeneration of the perinatally injured brain. Hotchkiss Brain Institute.

Apr 2010 Making sense of the molecular signature of perinatal brain injury. University of Victoria, Division of Medical Sciences.

Nov 2009 Dynamic, experience-dependent modulation of synaptic zinc within excitatory terminals of the mouse barrel cortex. 2nd Meeting of the International Society for Zinc Biology. Jerusalem, Israel.

June 2009 Understanding neural regeneration following neonatal brain injury. University of Victoria, Division of Medical Sciences.

May 2008 A role for synaptic zinc in cerebral cortical plasticity. Zinc Signals (Galveston, Texas)

Jan 2008 A role for synaptic zinc in cerebral cortical plasticity. Inaugural Meeting of the International Society for Zinc Biology. Banff, Alberta

Jun 2006 Regeneration of the medial frontal cortex after brain injury in neonatal mice. Dept of Medicine. University of Winnipeg.

May 2006 Vibrissa function and somatosensory cortex plasticity in mice. International Society for Behavioural and Neural Genetics, Vancouver, BC.

Apr 2006 Characterization of a novel mouse model of Parkinson's Disease. Grand Rounds. Dept of Medical Genetics, University of Calgary.

Jun 2005 Zinc as a neurotransmitter in the cerebral cortex: Implications for plasticity and pathology. Dept of Physiology, University of Lodz, Poland

Mar 2005 Zinc as a neurotransmitter in the cerebral cortex: Implications for plasticity and pathology. Dept of Psychology, University of Saskatchewan

July 2004 Zinc as a neurotransmitter: Implications for plasticity and pathology. Centre for Neuroscience, University of Heidelberg, Germany.

July 2004 Zinc as a neurotransmitter in the cerebral cortex: Implications for plasticity and pathology. University College London, Institute of Ophthalmology, London, England.

June 2004. What we know about zinc in rodent barrel cortex. Zinc Signals. Aarhus, Denmark.

May 2004 Plasticity: It's hard without metal. Symposium for Alzheimer's Disease and Related Disorders; Canmore, AB.

Feb 2004 If a Fox can develop Parkinson's Disease, why not a Mouse? Canadian Spring Meeting on Behaviour and Brain; Fernie, BC.

May 2003 Involvement of zincergic neurotransmission in Alzheimer Disease. Symposium for Alzheimer's Disease and Related Disorders; Canmore, AB.

Mar 2003 A penny for your thoughts: The role of zinc in nervous system function and dysfunction. Department of Psychology, University of Windsor, ON

Sept 2002 Cortical regeneration in mice following postnatal injury. University of British Columbia, Neuroscience Discussion Group. Vancouver, BC.

June 2002 Cortical regeneration in mice following postnatal injury. Canadian Society for Brain Behaviour and Cognitive Science. Vancouver, BC.

Apr 2002 Zinc in cerebral cortical plasticity. Zinc Signals 2002; Grand Cayman, BWI.

Oct 2001 Regenerating the injured brain. What will we/they think of next? University of Calgary, Sigma Xi Society.

June 2001 The role of zinc in the pathogenesis of stroke. Canadian Stroke Network Annual General Meeting - Ottawa

Mar 2001 Contribution of S100B to epileptogenesis in the amygdala kindling model of epilepsy. Canadian Epilepsy Research Initiative; Toronto.

Mar 2001 Neuropathology in pediatric stroke. Pediatric Acquired Brain Injury Workshop; Edmonton

Apr 2000 The case of the disappearing lesion: regeneration or renovation of postnatal cerebral cortex? Dept of Psychology, University of Alberta

Mar 2000 Role of experience in cortical plasticity. Conference on Multisensoriality, Calgary.

Jan 1999 The case of the disappearing lesion: regeneration or renovation of postnatal cerebral cortex? Neuroscience Research Group, University of Calgary.

Mar 1998 Cortical regrowth following traumatic brain injury. Psychology, University of Calgary.

May 1997 Factors affecting regeneration of cortical tissue after neonatal frontal injury. Annual Meeting, Neuroscience Network, Networks for Centres of Excellence. Vancouver

Feb 1996 Role of zinc-ergic neurons in neocortical development and plasticity. School of Medicine, Wake Forest University.

Oct 1995 Ontogeny and plasticity of the zinc-ergic innervation of cerebral cortex. School of Medicine, Memorial University

Sept 1995 Ontogeny and plasticity of the zinc-ergic innervation of cerebral cortex. Centre for Molecular Medicine and Therapeutics, University of British Columbia.

Feb 1995 Molecular compartmentation of the developing neocortex. Neuroscience Research Group, University of Calgary.

Nov 1994 Dynamic columnar distribution of synaptic zinc in developing rat somatosensory cortex. Barrels VII, Miami

June 1994 Activity dependent regulation of zinc in the adult primate visual cortex. Annual Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science, Vancouver.

May 1994 Columnar compartmentation of the developing mammalian neocortex: A crucial role for zinc? Dept. Anatomy, University of Western Ontario, London.

Aug 1993 Zinc columns in primate visual cortex. Dept. Physiology, University of California, San Francisco.

Mar 1992 Activity-dependent expression of serotonin receptor subtypes during visual cortical development. Networks for Centres of Excellence Workshop on Activity-Dependent Modification in the Nervous System, Toronto.

Sept 1992 Unique roles for serotonin receptors in neocortical development. University of British Columbia Neuroscience Discussion Group, Vancouver.

May 1991 Expression of serotonin receptor subtypes during visual cortical development. Dept. Neuroscience, Yale University.

Apr 1991 Serotonin receptors in cortical development. Role in column formation? Dept. Anatomy and Cell Biology, University of Alberta.

Jan 1991 Developmental expression of S100ß protein during the critical period for visual cortex plasticity. Workshop on Glia and Regeneration. McGill University.

Jul 1991 Laminar and columnar distribution of serotonin receptor subtypes during visual cortical development. The Salk Institute, San Diego.