CURRICULUM VITAE

David Frederic Collins, PhD

I. PERSONAL INFORMATION

Date of Birth:	November 21, 1962
Home Address:	12908-63 Avenue Edmonton, Alberta CANADA T6H 1S1
Home Phone:	(780) 430-8577

II. PRESENT POSITIONS

Title:	Associate Professor
Address:	Faculty of Physical Education and Recreation Centre for Neuroscience 6-41 General Services Building, University of Alberta Edmonton, Alberta, CANADA, T6G 2H9
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Title:	Adjunct Associate Professor
Address:	Department of Biomedical Engineering Faculty of Medicine and Dentistry University of Alberta Edmonton, Alberta, CANADA, T6G 2R7

Title:	Research Affiliate
Address:	Glenrose Rehabilitation Hospital 10230 - 111 Avenue Edmonton, Alberta, T5G 0B7

III. EDUCATION

1998	PhD (Neuroscience) *Sensory control of upper limb movements*	Dr. A. Prochazka	University of Alberta, Edmonton, Alberta
1990	MSc (Neurophysiology) *Premovement modulation of H-reflexes in the human soleus*	Dr. J.D. Brooke	University of Guelph, Guelph, Ontario
1987	BSc (Human Kinetics)		University of Guelph, Guelph, Ontario

IV. PREVIOUS POSITIONS AND APPOINTMENTS

1990-1991	Research Associate	Dr. J.D. Brooke	Neurophysiology Laboratory, University of Guelph
1998-1999	Research Associate	Dr. E. P. Zehr	Neurophysiology Laboratory, University of Alberta
1999-2001	Postdoctoral Fellow	Drs. S.C. Gandevia & D. Burke	Prince of Wales Medical Research Institute, Sydney, Australia

2001-2002	Postdoctoral Fellow	Dr. E. P. Zehr	Neurophysiology Laboratory, University of Alberta
2002	Research Associate	Dr. E. P. Zehr	Neurophysiology Laboratory, University of Alberta
2002-2005	Assistant Professor		Faculty of Physical Education and Recreation, University of Alberta
2007	Visiting Senior Research Fellow	Dr. S.C. Gandevia	Prince of Wales Medical Research Institute, Sydney, Australia
2004-2010	Adjunct Associate Professor		School of Physical Education, University of Victoria,

V. SCHOLARSHIPS

1988	University of Guelph Entrance Scholarship
1992-1994	University of Alberta Ph.D. Scholarship
1992-1996	Alberta Heritage Foundation for Medical Research Studentship
1994-1996	Medical Research Council Studentship
1994-1996	Walter H. Johns Fellowship
1996-1998	Isaac Walton Killam Memorial Doctoral Scholarship

VI. POST-DOCTORAL FELLOWSHIPS

1999-2001	Natural Sciences and Engineering Council of Canada Fellowship
1999-2002	Alberta Heritage Foundation for Medical Research Fellowship

VII. RESEARCH GRANTS

2002-2007	Alberta Heritage Foundation for Medical Research Scholar, Utilising intrinsic spinal cord mechanisms for the electrical stimulation of human muscle (salary support)
2002-2004	Alberta Heritage Foundation for Medical Research Establishment Grant, Utilising intrinsic spinal cord mechanisms for the electrical stimulation of human muscle, (2 year total $145,000)
2002-2004	University start-up grant for new faculty. VP Academic start-up Collins, ($1,500)
2002-2006	Canada Foundation for Innovation New Opportunities Grant (Infrastructure), Neurophysiology Laboratory to study and restore human limb movement. ($81,266)
2003-2007	Canadian Institute for Health Research Operating Grant, Activating central mechanisms for functional electrical stimulation of human muscle (3 year total $137,883)
2003-2008	Natural Sciences and Engineering Council of Canada Discovery Grant, Investigating the central contribution to contractions evoked during electrical stimulation of human muscle, (4 year total $104,480)
2003	Endowment Fund for the Future Support for the Advancement of Scholarship, Reflex pathways from muscle receptors connect all four limbs in humans, (1 year $5,000)

2004	EFF Support for the Advancement of Scholarship, Using transcranial direct current stimulation of the motor cortex to assess the cortical contribution to reflexes in human limb muscles, (1 year $5,000)
2005	Alberta Science and Research Investment Program Grant (Infrastructure), Neurophysiology Laboratory to study and restore human limb movement. ($60,969)
2006	Physiotherapy Foundation of Canada, Randomized Controlled Trial of Progressive Resistance Exercise Training for Spinal Accessory Neurapraxia/Neurectomy in Head and Neck Cancer Survivors. McNeely ML, Courneya KS, Parliament M, Seikaly H, Magee DJ, Haykowsky M, and Collins DF. (1 year, $9,602).
2006	EFF Support for the Advancement of Scholarship, Potentiated muscle contractions: A pre- or postsynaptic mechanism? (1 year $5,000)
2006-2011	Canada Foundation for Innovation Infrastructure Operating Fund, $24,380
2007	EFF Support for the Advancement of Scholarship, Afferent origin of interlimb reflexes (1 year $5,000)
2008	Natural Sciences and Engineering Council of Canada Discovery Grant, Tetanic electrical stimulation of human muscle (1 year $24,000)
2008	VP Research Grant, University of Alberta, Muscle Stimulation and the excitability of the human brain (VP Research $15,264; Faculty of Physical Education and Recreation $10,000)
2008-2011	Spinal Cord Injury Treatment Centre (Northern Alberta) Society Craig Simpson Quality of Life Research Grant, Neuromuscular electrical stimulation for rehabilitation of muscle paralysed by spinal cord injury ($6,921.56)
2009-2014	Natural Sciences and Engineering Council of Canada Discovery Grant, Control properties of single motor units ($175,000)
2009-2010	Emerging Leaders in the Americas Program, Neuromuscular electrical stimulation in humans: using reflex pathways to reduce muscle fatigue. Funds to support exchange student from Brazil for 6 months ($10,000)
2010-2013	Alberta Paraplegic Foundation, PhD Studentship Grant, Neuromuscular electrical stimulation after spinal cord injury. ($100,000)
2010-2011	EFF Support for the Advancement of Scholarship, Mechanisms of neuroplasticity in the human brain induced by neuromuscular electrical stimulation ($6,000)

VIII. CONTRIBUTIONS TO TEACHING and LEARNING (course -based)

i) Undergraduate

Lecture-based

1990	Guest Lecturer, Neurophysiology of Human Movement, Faculty of Human Biology, University of Guelph
1998	Sessional Instructor, Introductory Physiology, Community Rehabilitation Studies, University of Calgary
2001-2002	Instructor, Human Physiology (PEDS 102), Faculty of Physical Education and Recreation, University of Alberta
2002	Guest Lecturer, Human Physiology (PEDS 102), Faculty of Physical Education and Recreation, University of Alberta
2003-present	Instructor, Human Motor Control (PEDS 302), Faculty of Physical Education and Recreation, University of Alberta

2004	Guest Lecturer, Introduction to Research Methods (PEDS 409), Faculty of Physical Education and Recreation, University of Alberta
2004	Guest Lecturer, Skill Acquisition and Performance (PEDS 203), Faculty of Physical Education and Recreation, University of Alberta
2005	Guest Lecturer, Physical Activity and Leisure for Special Populations (PERLS 207), Faculty of Physical Education and Recreation, University of Alberta
2005	Guest Lecturer, Skill Acquisition and Performance (PEDS 203, Fall and Winter Terms), Faculty of Physical Education and Recreation, University of Alberta
2006	Guest Lecturer, Physical Activity and Leisure for Special Populations (PEDS 412/512), Faculty of Physical Education and Recreation, University of Alberta.
2006	Introduction to Human Physiology (PEDS 101), Faculty of Physical Education and Recreation, University of Alberta
2006	Guest Lecturer, Introduction to the Scientific Basis of Human Movement (PEDS 391), Faculty of Physical Education and Recreation, University of Alberta
2007	Integrative Human Physiology (PEDS 103), Faculty of Physical Education and Recreation, University of Alberta
2008	Introduction to Human Physiology (PEDS 101), Faculty of Physical Education and Recreation, University of Alberta
2009	Instructor, Integrative Human Physiology (PEDS 103), Faculty of Physical Education and Recreation, University of Alberta
2010	Coordinator and Lecturer, Integrative Human Physiology (PEDS 103), Faculty of Physical Education and Recreation, University of Alberta
2010	Introduction to Human Physiology (PEDS 101), Faculty of Physical Education and Recreation, University of Alberta
2011	Coordinator and Lecturer, Integrative Human Physiology (PEDS 103), Faculty of Physical Education and Recreation, University of Alberta
2011	Introduction to Human Physiology (PEDS 101), Faculty of Physical Education and Recreation, University of Alberta

Tutorial/small group/laboratory

1988-1990	Teaching Assistant, Neurophysiology of Human Movement, Department of Human Biology, University of Guelph
2002	Supervisor, Directed Study (PEDS 499), Piotr Klakowicz, Faculty of Physical Education and Recreation, University of Alberta
2003	External examiner, Research Project in Neuroscience (NEURO 452), David McVea, Centre for Neuroscience, University of Alberta
2003	Supervisor, Directed Study (PEDS 499), Mona Agniorti, Faculty of Physical Education and Recreation, University of Alberta
2004	Supervisor, Directed Study (PEDS 499), Joanna Clair, Faculty of Physical Education and Recreation, University of Alberta
2005	Supervisor, Full-time Practicum (PEDS 491), Joanna Clair, Faculty of Physical Education and Recreation, University of Alberta
2005	Supervisor, Part-time Practicum (PEDS 490), Petra Boronowski, Faculty of Physical Education and Recreation, University of Alberta

2005	Supervisor, Part-time Practicum (PEDS 490), Austin Bergquist, Faculty of Physical Education and Recreation, University of Alberta
2005	Supervisor, Full-time Practicum (PEDS 491), Lisa Yates, Faculty of Physical Education and Recreation, University of Alberta
2005-2006	Supervisor, Undergraduate Research Project (PHYSL 467), Alexander Brown, Department of Physiology, University of Alberta.
2006	Supervisor, Part-time Practicum (PEDS 490), Leo Carroll, Faculty of Physical Education and Recreation, University of Alberta.
2007	Supervisor, Full-time Practicum (PEDS 491), Jamie Anderson-Reid, Faculty of Physical Education and Recreation, University of Alberta
2007	External examiner, Research Project in Neuroscience (NEURO 451), Claire Seymour, Centre for Neuroscience, University of Alberta
2007	External examiner, Research Project in Neuroscience (NEURO 452), Genelle Dingledein, Centre for Neuroscience, University of Alberta
2008	Supervisor, Full-time Practicum (PEDS 491), Cameron Mang, Faculty of Physical Education and Recreation, University of Alberta
2008	Supervisor, Directed Study (PEDS 499, 2 semesters), Jamie Anderson-Reid, Faculty of Physical Education and Recreation, University of Alberta
2008	Supervisor, Full-time Practicum (PEDS 491), Yoshino Okuma, Faculty of Physical Education and Recreation, University of Alberta
2008	Supervisor, Full-time Practicum (PEDS 491), Caitlin Graham, Faculty of Physical Education and Recreation, University of Alberta
2008	Supervisor, Special Training in Research (STIR), Alexander Tamm, Faculty of Medicine and Dentistry, University of Alberta
2008	Supervisor, Directed Study (PEDS 499), Yoshino Okuma, Faculty of Physical Education and Recreation, University of Alberta
2009	Supervisor, Full-time Practicum (PEDS 491), Kaitlin Cleveley, Faculty of Physical Education and Recreation, University of Alberta
2009	Supervisor, Directed Study (PEDS 499), Yoshino Okuma, Faculty of Physical Education and Recreation, University of Alberta
2009	Supervisor, Full-time Practicum (PEDS 491), Jason Waddell, Faculty of Physical Education and Recreation, University of Alberta
2010	Supervisor, Directed Study (PEDS 499) Leanne Jacobs. Faculty of Physical Education and Recreation, University of Alberta
2010	Supervisor, Directed Study (PEDS 499) Sarah Roshko. Faculty of Physical Education and Recreation, University of Alberta
2010	Supervisor, Honors research project in neuroscience (NEURO 452) Mandy Hong. Department of Physiology, Centre for Neuroscience, University of Alberta
2011	Supervisor, Full-time Practicum (PEDS 491), Sarah Roshko, Faculty of Physical Education and Recreation, University of Alberta

ii) Graduate

2003	Supervisor, Research in Neuroscience (NEURO 500), Evan Baldwin, Modulation of activity in corticospinal pathways to human forearm muscles during arm cycling, Centre for Neuroscience, University of Alberta

2003	Supervisor, Research in Neuroscience (NEURO 500), Piotr Klakowicz, Human interlimb reflexes in upper limb muscles evoked by activation of stretch receptors in lower limb muscles, Centre for Neuroscience, University of Alberta
2004	Supervisor, Research in Neuroscience (NEURO 500), David Bolton, Human interlimb reflexes are altered by mode of lower limb stimulation and the intensity of electrical stimulation, Centre for Neuroscience, University of Alberta
2007	Co-Supervisor with Dr. Margie McNeely, Physical Therapy Major Project (PTHER 900), Evan Baldwin, Terri Anderson, Josh Lancaster, Megan Czajkowski, Reanimating trapezius after head and neck surgery, Faculty of Rehabilitation Medicine, University of Alberta
2010	Supervisor, Research in Neuroscience (NEURO 501) Rui Zhou, Motor unit recruitment during neuromuscular electrical stimulation of tibialis anterior, Centre for Neuroscience, University of Alberta
2010	External reviewer, The art of grant writing (Cell 621), Department of Cell Biology, University of Alberta
2011	External reviewer, The art of grant writing (Cell 621), Department of Cell Biology, University of Alberta

IX. SUPERVISION OF STUDENTS/POSTDOCTORAL FELLOWS

i) High School

2004	Alexander Tamm	Heritage Youth Researcher Summer Program
2005	Alexander Tamm	AHFMR Summer Studentship
2010	Jenny Lou	International Baccalaureate Research Project
2010	Diane Wong	International Baccalaureate Research Project
2010	Nancy Liang	International Baccalaureate Research Project
2010-2011	Jenny Lou	Sanofi BioGENEius Challenge Canada
2010-2011	Jennifer Wu	Sanofi BioGENEius Challenge Canada
2011	Jenny Lou	Edmonton Brain Bee Summer Internship

ii) Undergraduate

2002	Nienke Hoogenboom	Visiting international student (Holland)
2003	Piotr Klakowicz	Summer research assistant
2003	Evan Baldwin	Summer research assistant
2004	Tiffanie Lévesque	Summer volunteer research assistant
2004	Joanna Clair	Summer research assistant
2004	Alex Brown	Summer research assistant
2005	Alex Brown	Summer research assistant
2006	Alexander Tamm	NSERC & AHFMR Summer Studentship
2006	Alex Brown	NSERC Summer Studentship
2006	Lisa Yates	Summer research assistant
2006	Austin Bergquist	Summer research assistant
2007	Alexander Tamm	NSERC & AHFMR Summer Studentships
2006-2007	Alexander Brown	Research assistant

2007	Ambica Parmar	Summer volunteer research assistant
2007	Cameron Mang	Summer volunteer research assistant
2008	Alexander Tamm	AHFMR Summer Studentship
2008	Cameron Mang	NSERC Summer Studentship
2007-2008	Jamie Anderson-Reid	Research assistant
2008	Kaitlin Cleveley	Summer volunteer research assistant
2009	Kaitlin Cleveley	Summer research assistant
2009	Yoshino Okuma	Summer research assistant
2009	Sarah Roshko	Summer volunteer research assistant
2010	Lisa Ellison	Summer volunteer research assistant
2010	Sarah Roshko	NSERC Summer Studentship
2011	Sarah Roshko	NSERC Summer Studentship
2011	Andrea Bui	Summer research assistant
2011	Mandy Hong	Summer volunteer research assistant

iii) Graduate

2002-2003	Alain Frigon (MSc; co-supervised with Dr. E. Paul Zehr), Modulation of soleus H-reflexes and somatosensory conditioning induced by position and rhythmic movement of the legs.
2003-2005	Evan Baldwin (MSc; co-supervised with Dr. Brian Maraj), Wide-pulse width, high-frequency electrical stimulation: implications for neuromuscular electrical stimulation.
2003-2005	Piotr Klakowicz (MSc; NSERC funded), Reflexive and peripheral contributions to muscle contractions evoked by tetanic nerve stimulation in humans.
2004-2009	Olle Lagerquist (PhD; NSERC funded), Neuromuscular electrical stimulation and the central nervous system.
2005-2010	Joanna Clair (PhD; NSERC funded), Sensorimotor integration in the human spinal cord.
2006	Alexandra Martin (Visiting International MSc Student, Finland), Sensorimotor control in humans.
2007-present	Austin Bergquist (PhD; Alberta Paraplegic Foundation funded), Activating central circuits using neuromuscular electrical stimulation.
2008- 2010	Cameron Mang (MSc, NSERC funded), Changes in corticospinal excitability induced by neuromuscular electrical stimulation.
2009-present	Yoshino Okuma (MSc, Center for Neuroscience funded), Spatial recruitment of motor units during neuromuscular electrical stimulation of tibialis anterior.
2009-2010	Matheus Wiest (Visiting International MSc Student, Brazil), Central and peripheral contributions to electrically-evoked contractions of the quadriceps.
2009-present	Chad Lorenz, (MSc, Co-supervised with Dr. Kelvin Jones), A comparison of the biophysical properties of rat soleus versus tibialis anterior motor axons.
2011-present	Matheus Wiest, (PhD, U of Alberta PhD Recruitment Scholarship), On the central contribution to contractions evoked during neuromuscular electrical stimulation.
2011-present	Alyssa Hindle, (MSc, U of Alberta MSc Recruitment Scholarship), Influence of neuromuscular electrical stimulation parameters on corticospinal excitability.

iv) Postdoctoral Fellows

2002-2003 Timothy Carroll PhD (Killam Postdoctoral Fellow), Sensorimotor control of the upper limb

2005-2008 Jesse Dean PhD (funded by the Faculty of Physical Education and Recreation), Turning-on and turning-off the central contribution to electrically-evoked contractions

X. CONTRIBUTIONS to GRADUATE STUDENT COMMITTEES

i) Membership on Supervisory Committees

2003-2007 PhD, Derek Kivi, Analysis and simulation of the recovery leg during sprinting, Faculty of Physical Education and Recreation, University of Alberta

2004-2009 PhD, David Bolton, Somatosensory contributions to equilibrium during human locomotion. Faculty of Rehabilitation Medicine, Centre for Neuroscience, University of Alberta

2004-2006 PhD, Tong-Ching Tom Wu, Biomechanics, Faculty of Physical Education and Recreation, University of Alberta

2004- 2007 PhD, Sherif Elbasiouny, Suppressing motoneuron excitability after SCI, Department of Biomedical Engineering, University of Alberta

2004-2008 PhD, Sandra Hundza, Modulation of within limb and interlimb reflexes during rhythmic arm cycling, Faculty of Physical Education, University of Victoria

2005-2006 MSc, Jackie Balter, Reflexive contributions from the arms and legs to cutaneous reflex modulation in the legs during a combined rhythmic task, Faculty of Physical Education, University of Victoria

2005-2006 MSc, Emily Krauss, Context-dependent soleus H-reflex modulation in humans, Faculty of Rehabilitation Medicine, University of Alberta

2005-2007 PhD, Scott Butcher, Modulation of ventilatory mechanisms during exercise in ventilation-limited populations. Faculty of Physical Education and Recreation, University of Alberta

2005-2010 PhD, Marc Klimstra, Reflex control of movement, Faculty of Physical Education, University of Victoria

2007-2008 PhD, Rick Jemmett, Potential markers of lumbar pathology in patients with lower back pain, Faculty of Rehabilitation Medicine, University of Alberta

2008-2009 MSc, Chad Lorenz, Faculty of Physical Education and Recreation, University of Alberta

2008-present PhD, Adrian Popescu, Faculty of Physical Education and Recreation, University of Alberta

2009-present PhD, Juan Forero, Faculty of Rehabilitation Medicine, Centre for Neuroscience, University of Alberta

2010-present PhD, Elizabeth Condliffe, Department of Biomedical Engineering, Centre for Neuroscience, University of Alberta

ii) Membership on Examination Committees

1999 MSc examination committee, Bronwen Hewitt, Kinaesthesia at the knee: the effect of osteoarthritis and bandage application, University of Sydney, Australia

2003	PhD thesis proposal, Mark Ballerman, Spontaneous anatomical plasticity, compensation, and treatment-induced repair: origins of locomotor recovery in spinal cord injured rats, Faculty of Rehabilitation Medicine, University of Alberta
2005	PhD candidacy examination, Carlos Haridas, Compensatory corrective responses induced by cutaneous nerve stimulation in the hand and foot during walking, Faculty of Rehabilitation Medicine/Centre for Neuroscience, University of Alberta
2005	PhD candidacy examination, Margie McNeely, Randomized Controlled trial of progressive resistance exercise training in head and neck cancer survivors, Faculty of Physical Education and Recreation, University of Alberta
2005	MSc thesis defence, Xiaole Li, Roles of L-type calcium currents and 5-HT in motoneurons of chronic spinal rats, Centre for Neuroscience, University of Alberta
2006	PhD thesis defence, Yi Mao, Signal dependent noise and its role in motor planning, Department of Biomedical Engineering, University of Alberta
2007	PhD candidacy examination, Jan Kowalczewski, Centre for Neuroscience, University of Alberta
2009	PhD candidacy examination, Katie Murray, Centre for Neuroscience, University of Alberta.
2009	PhD thesis defence, Francois Roy, Sensorimotor control of human movement, Centre for Neuroscience, University of Alberta
2009	PhD thesis defence, Lui Shi Ghan, Neuroprostheses for the upper limb, Centre for Neuroscience, University of Alberta
2010	PhD thesis defence, Katie Murray, The role of serotonin receptors in spasticity after spinal cord injury, Centre for Neuroscience, University of Alberta
2011	PhD candidacy examination, Jessica D'Amico, Centre for Neuroscience, University of Alberta
2012	MSc thesis defence, external examiner, Barclay Dalhstrom, Experimental studies investigating the effects of intense endurance exercise on neuromuscular and central activation, Faculty of Kinesiology and Health Studies, University of Regina

iii) Chairperson

2004	MSc thesis defence, Jason Cabaj, Faculty of Physical Education and Recreation
2005	PhD candidacy examination, Margie McNeely, Faculty of Physical Education and Recreation
2007	PhD candidacy examination, Valerie Yeung, Department of Pharmacology
2008	MSc thesis proposal, Lei Yin, Department of Pharmacology
2008	MSc thesis defence, Elsa (Ximena) Corsa Diaz, Centre for Neuroscience
2008	PhD thesis proposal, Jason Dyck, Centre for Neuroscience
2008	MSc thesis proposal, Selina Gyawali, Centre for Neuroscience
2008	MSc thesis proposal, Jihuan Yin, Centre for Neuroscience
2009	PhD thesis defence, David Hayes, Centre for Neuroscience
2009	PhD thesis defence, Trevor Hamilton, Centre for Neuroscience

2009	PhD thesis defence, Darren Clark, Centre for Neuroscience
2009	MSc thesis proposal, Helena Kim, Centre for Neuroscience
2009	PhD thesis proposal, Christian Gutierrez, Centre for Neuroscience
2010	PhD thesis proposal, Andrea Shafer, Centre for Neuroscience
2010	PhD candidacy examination, Jason Dyck , Centre for Neuroscience
2010	PhD thesis defence, Aaron Lai, Centre for Neuroscience
2010	MSc thesis defence, Glenn Armitage, Centre for Neuroscience
2010	PhD thesis defence, Patrick Stemkowski, Centre for Neuroscience
2010	PhD thesis defence, Eryk Przysucha, Faculty of Physical Education and Recreation
2010	MSc thesis proposal, Richard Osborne, Centre for Neuroscience
2011	PhD thesis proposal, Bernice Sist, Centre for Neuroscience
2011	MSc thesis proposal, Sarah Treit, Centre for Neuroscience
2011	PhD thesis defence, Hojeong Kim, Department of Biomedical Engineering
2011	MSc thesis defence, Fraser Olsen, Centre for Neuroscience
2011	MSc thesis proposal, Jayal Caliaperumal, Centre for Neuroscience

XI. UNIVERSITY and DEPARTMENTAL ACTIVITIES

2002-2009	Graduate Programs Committee, Faculty of Physical Education and Recreation
2003	Internal reviewer of NSERC studentship applications, Faculty of Physical Education and Recreation
2003	Consultant, Physical activities for improving children's learning project (Causgrove-Dunn, Craig, Collins, Maraj), Faculty of Physical Education and Recreation
2003-2009	Co-ordinator, Motor Control/ Motor Behaviour Interdepartmental Discussion Group, Faculty of Physical Education and Recreation/Centre for Neuroscience
2004	Internal reviewer of general awards applications, Faculty of Physical Education and Recreation
2004	Search and Selection Committee, Director, Centre for Neuroscience
2004	Reviewer, Scientific Merit Application, Health Sciences Animal Policy and Welfare Committee
2005-present	Planning Committee, Centre for Neuroscience
2005	Search and Selection committee, Director, Steadward Centre, Faculty of Physical Education and Recreation
2005	Search and Selection Committee Senior Accounting Administrator, Faculty of Physical Education and Recreation
2007-2009	Graduate Programs Committee Member, Centre for Neuroscience
2007-2009	Health Research Ethics Board Member, Panel A (Biomedical)
2008	Co-organizer, Canadian Physiological Society Winter Meeting 2008, January 23-26, 2008, Lake Louise, Alberta, Canada
2009	Search and Selection Committee, Director, Centre for Neuroscience
2009-present	Graduate Programs Coordinator, Centre for Neuroscience

2010	Search and Selection committee, Administrator, Centre for Neuroscience
2010-2011	Chairperson and Head of Organising Committee, Exercise Physiologists of Western Canada annual meeting, August 11-13, 2011, Edmonton, Alberta.
2011	Acting Director (October-November), Centre for Neuroscience
2011-2012	Search and Selection Committee, Motor behaviour/ Motor Control tenure track position, Faculty of Physical Education and Recreation
2011	External examiner, tenure and promotion application, University of British Columbia, Okanagan campus

XII. GRANTS/JOURNALS REVIEWED

1995	Journal of Physiology
2003	Clinical Physiology, Journal of Neurophysiology, Journal of Applied Physiology, European Journal of Neuroscience, Experimental Physiology, Experimental Brain Research, Clinical Neurophysiology, Canadian Journal of Physiology and Pharmacology
2004	Clinical Neurophysiology, Journal of Applied Physiology, Journal of Physiology, Neuroscience Letters, Journal of Clinical Neurophysiology, Experimental Brain Research
	NSERC Discovery Grant, Collaborative Health Research Projects Grant
2005	Journal of Applied Physiology, Journal of Neurophysiology, Experimental Brain Research, International Journal of Neuroscience, Journal of Clinical Neurophysiology
2006	New Scientist, Journal of Neurophysiology, Journal of Applied Physiology, Journal of Physiology, Journal of Neuroscience Methods
	NSERC Discovery Grant, Sport Science Association of Alberta Grant
2007	Acta Physiologica, Journal of Applied Physiology, Journal of Physiology, Journal of Clinical Neurophysiology, Neuroscience Research
2008	Experimental Brain Research, Journal of Applied Physiology, Journal of Neurophysiology, Journal of Physiology, Muscle and Nerve, IEEE Haptics
2009	Acta Physiologica, Journal of Physiology, Muscle and Nerve, Journal of Neuroscience, Physiotherapy and Practice
2010	Clinical Neurophysiology, Experimental Brain Research, Human Movement Science, Journal of Applied Physiology, Journal of Neural Engineering and Rehabilitation
	Heart and Stroke Operating Grant, NSERC Discovery Grant
2011	Clinical Neurophysiology, Experimental Brain Research, Journal of Applied Physiology, Motor Control, Physical Therapy,
	NSERC Discovery Grant

XIII. PROFESSIONAL AND SOCIETY MEMBERSHIPS

1990-present	Society for Neuroscience
2003-present	Centre for Neuroscience, University of Alberta

2004-present	Canadian Association for Neuroscience
2005-present	Canadian Physiological Society; (Council Member 2008-2011)
2005-present	International Functional Electrical Stimulation Society
2005-2006	International Association of Sport Kinetics
2006-present	North American Neuromodulation Society
2011-present	Chapter Representative, Northern Alberta Neuroscience Chapter, Society for Neuroscience

XIV. INVITED PRESENTATIONS

1999	Sensory control of upper limb movements in humans. Departmental seminar, Department of Occupational Therapy, Faculty of Rehabilitation Medicine, University of Alberta, Edmonton, Canada
1999	Sensory control of upper limb movements in humans. Departmental seminar, Faculty of Physical Education and Recreation, University of Alberta, Edmonton, Canada
1999	Contact evoked changes in EMG activity during human grasp. POWMRI sensorimotor seminar, Prince of Wales Medical Research Institute, Sydney, Australia
1999	What role do cutaneous receptors play in kinaesthesia? Kioloa Neuroscience Colloquium, Kioloa, Australia
1999	Integration of cutaneous and muscle afferents in the perception of movements at the metacarpophalangeal joint. POWMRI sensorimotor seminar, Prince of Wales Medical Research Institute, Sydney, Australia
2000	Integration of cutaneous and muscle spindle feedback in kinaesthetic judgements at the human metacarpophalangeal joint. Centre for Neuroscience seminar series, University of Alberta, Edmonton, Canada
2000	Unexpectedly large forces produced by electrical stimulation applied over human muscles. Faculty of Physical Education and Recreation seminar series, University of Alberta, Edmonton, Canada
2000	Unexpectedly large forces produced by electrical stimulation applied over human muscles. Department of Physiology seminar series, University of British Columbia, Vancouver, British Columbia, Canada
2001	Peripheral and central contributions to the forces produced by electrical stimulation over human muscle. Biomedical Sciences Seminar, Sydney University, Sydney, Australia
2001	The central contribution to contractions evoked by electrical stimulation over human muscle. Movement and Sensation Symposium, Satellite meeting of the International Union of Physiological Sciences Congress, Cairns, Australia
2002	Research interests in human motor control. School of Human Kinetics seminar, University of British Columbia, Vancouver, British Columbia, Canada
2002	An update on the cutaneous contribution to kinaesthesia. Fall meeting of the Alberta Motor Control Group. Kananaskis Centre for Environmental Research, Kananaskis, Alberta, Canada

2003	An Introduction to the Human Neurophysiology Laboratory. Faculty of Physical Education and Recreation Open House Weekend, University of Alberta, Edmonton, Alberta, Canada
2003	From observation to a research program: The beginnings of a career in science. Faculty of Physical Education and Recreation Research Day, University of Alberta, Edmonton, Alberta, Canada
2004	Activating spinal neurons with functional electrical stimulation (FES): Implications for restoring movement and reducing muscle atrophy. Department of Physical Therapy and Human Movement Sciences, Feinberg School of Medicine, Northwestern University, Chicago, USA
2004	Turning-on spinal neurons with surface electrical stimulation of human muscle: Implications and applications. Sensory Motor Performance Program of the Rehabilitation Institute of Chicago, Chicago, USA
2004	Electrical stimulation of human muscle: Why and how. Faculty of Physical Education and Recreation Seminar, University of Alberta, Edmonton, Canada
2004	Assessing the central contribution to contractions evoked by surface stimulation of human muscle. Prince of Wales Medical Research Institute, Sydney, Australia
2005	Reflex-like contributions to contractions evoked by stimulation over the human triceps surae during sitting and standing. 10th Annual Conference of the International FES Society, Montreal, Canada
2005	Stroke and rehabilitation. Alberta Heritage Medical Research Foundation 25th Anniversary seminar series. High School presentation, Canmore Collegiate High School, Canmore, Alberta, Canada
2005	Stroke and rehabilitation. Alberta Heritage Medical Research Foundation 25th Anniversary seminar series. Public presentation, Radisson Hotel and Conference Centre, Canmore, Alberta, Canada
2006	Electrical stimulation of human muscle: Why and how. Human Health and Nutritional Sciences seminar, University of Guelph, Ontario, Canada
2006	Tetanic stimulation of human muscle: mechanisms and implications. Centre for Neuroscience seminar, University of Alberta, Canada
2006	Central and peripheral contributions to contractions evoked by tetanic electrical stimulation of human muscle. 5th World Congress of Biomechanics, Munich Germany.
2007	Central and peripheral contributions to contractions evoked by neuromuscular electrical stimulation. POWMRI sensorimotor seminar, Sydney Australia
2007	Recent insights into how reflexes contribute to contractions evoked by neuromuscular electrical stimulation. Department of Physical Therapy and Human Movement Sciences, Northwestern University, Chicago, USA
2008	Central and peripheral contributions to contractions evoked by neuromuscular electrical stimulation. Canadian Physiological Society Winter Meeting, Lake Louise, Alberta, Canada
2008	Motor unit recruitment during neuromuscular electrical stimulation (NMES). 2008 Seattle Motoneuron Meeting: Mechanisms of Disease and Plasticity in Motoneurons, Seattle, Washington, USA.

2008	My Job as a University Professor and Scientist. Rainham Public School, Elementary Grades 4-5, Fisherville, Ontario, Canada
2009	Neuromuscular electrical stimulation. Canadian Paraplegic Association, Glenrose Hospital, Edmonton, Alberta, Canada
2010	On the central contribution to contractions evoked by neuromuscular electrical stimulation. XVIII Congress of the International Society of Electrophysiology and Kinesiology, Aalborg, Denmark.
2010	Does the motor cortex contribute to "self-sustained" firing of human motor units? Towards translational research in motoneurons. Paris, France.
2010	Electrical stimulation of human muscle; Why and How? Keynote presentation: Exercise physiologists of Western Canada conference. Regina, Saskatchewan, Canada.
2011	Neuromuscular electrical stimulation: implications of the electrically-evoked sensory volley, Centre for Neuroscience seminar series, University of Alberta

XV. CIVIC ACTIVITIES

2002	Laboratory Open House, Alberta Heritage Foundation for Medical Research Health Research Awareness Day
2003	Laboratory Demonstration, Alberta Heritage Foundation for Medical Research /Heritage Youth Researcher Summer Program
2003	Laboratory Open House, Faculty of Physical Education and Recreation Reunion Weekend, September 18-21, 2003
2004	Laboratory Demonstration, Women in Scholarship, Engineering, Science and Technology, August 11, 2004
2004	Laboratory Demonstration, Heritage Youth Researcher Summer Program, August 13, 2004
2005	Laboratory Demonstration, Heritage Youth Researcher Summer Program, July 21, 1005
2005	Judge, Faculty of Medicine & Dentistry Summer Students' Research Day, October 15, 2005.
2006	Laboratory Demonstration, Faculty of Physical Eduction and Recreation, June 14, 2006
2006	Laboratory Demonstration, Alberta Inginuity, July 11, 2006
2007	Laboratory Demonstration, Junior Kindergarten, Child Study Centre, Faculty of Education, April 17, 2007
2007	Laboratory Open House, Dean's Tour on Reunion Weekend, September 29, 2007
2009	Media Event - Morning people and evening people's brains are different, June 23, 2009
2009	Laboratory Demonstration, Women in Scholarship Engineering Science and Technology, July 13, 2009
2009	Laboratory Demonstration, Teacher appreciation day, Women in Scholarship Engineering Science and Technology, August 12, 2009
2009	Laboratory Demonstration, Leduc Composite High School Bio 30 class, October 2, 2009

2009	Laboratory Demonstration, Beijing Sport University visit, November 13, 2009
2010	Laboratory Demonstration, Women in Scholarship Engineering Science and Technology, August 9, 2010
2010	Laboratory Demonstration, Leduc Composite High School Bio 30 class, October 6, 2010
2010	Laboratory Demonstration, Discovery Days in Health Science, October 20, 2010
2011	Laboratory Demonstration, Leduc Composite High School Bio 30 class, March 11, 2011
2011	Laboratory Demonstration, University of Alberta U School, March 24, 2011
2011	Laboratory Demonstration, Women in Scholarship Engineering Science and Technology, August 7, 2011

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87. Collins DF, Bergquist AJ, Roshko SM & Mang CS. (2012) Short-latency afferent inhibition is reduced and afferent facilitation is enhanced following neuromuscular electrical stimulation. XIX Congress of the International Society of Electrophysiology and Kinesiology, Brisbane, Australia, July.
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