



**WESTERN UNIVERSITY
INTERDISCIPLINARY PAIN PROGRAM**



ANNUAL REPORT

2013



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- EXECUTIVE SUMMARY -

Pain Program Annual Report 2013

In 2013, we welcomed three new faculty members to the Western Pain Program. Dr. Ricardo Viana is an Assistant Professor in the Department of Physical Medicine & Rehabilitation. Dr. Viana has a special interest in chronic musculoskeletal pain and also pain education. Dr. Gregory McCarthy joined the Pain Program from the Department of Psychiatry and provides a very important clinic in Addiction and Pain Medicine. Dr. Melanie Racine is a Research Associate at Western following completion of a 2-year Psychology Fellowship under the direction of Dr. Warren Nielsen. We report Dr. Racine's recent publications on the role of gender and suicidal ideation in chronic pain patients.

Dr. David Walton, Assistant Professor in the School of Physical Therapy, deserves special recognition. Dr. Walton has a special interest in prognosis in acute whiplash and prevention and treatment of chronic pain. In 2013, he published 16 papers on these topics—most as first author.

Dr. Patricia Morley-Forster received the prestigious Gold Medal Award from the Canadian Anesthesiology Society in 2013. This is in recognition of her leadership in healthcare and contributions to the academic community. She was the inaugural recipient of the Early Russell Endowed Chair in Pain Management at Western and was responsible for the development and implementation of the initial strategic plan for pain research and management. She initiated and chaired the Task Force and the Specialty Committee in Pain Medicine for the Royal College and all of this culminated in the accreditation of Pain Medicine as a subspecialty of the Royal College of Physicians & Surgeons of Canada. The first residents in this 2-year Pain Medicine Fellowship start their program at Western in July 2014.

Dr. Samantha Whiteside, post-doctoral fellow under the supervision of Dr. Gregor Reid from the Department of Microbiology, was the recipient of a \$10,000 Earl Russell Trainee Grant for her project entitled, "Neuro-Pathogenic Bacteria Blocking Pain Receptors as a Method of Bladder Persistence and Infection".



Dwight Moulin, M.D., FRCP(C), Earl Russell Chair, Western Pain Program

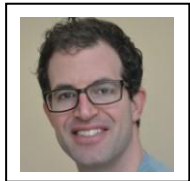
Face Page

Dr. Eldon Loh, Assistant Professor in the Department of Physical Medicine & Rehabilitation, prepares for an interventional pain-relieving procedure in the fluoroscopy suite in the St. Joseph's Health Care Pain Clinic

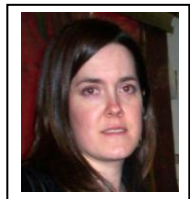
- SCIENTIFIC ADVISORY BOARD MEMBERS -



Dr. Geoff Bellingham completed residency in anesthesia and perioperative medicine at Western University. This was followed by a fellowship in chronic pain at the University of Toronto at the Wasser Pain Management Centre. Dr. Bellingham's focus during the fellowship was on the use of ultrasound guidance for interventional pain management in addition to other established interventional pain management techniques using fluoroscopy. Currently, he holds pain clinics in which patients are managed using pharmacotherapy in addition to using other resources available such as psychotherapy and physiotherapy. Interventions using ultrasound are integrated into these clinics and separate interventional days are held at the pain clinic's dedicated fluoroscopy suite. Dr. Bellingham is also the present program director of the Chronic Pain Fellowship and is presently working to establish a Royal College accredited Pain Medicine Residency program.



Dr. Collin Clarke is an Assistant Professor in the Department of Anesthesia and Perioperative Medicine at Western University. Following the Completion of his anesthesia residency at Western University, Collin completed an Interventional Pain Management at Duke University Medical Centre in North Carolina. During his fellowship, he focused primarily on the management of Complex Regional Pain as well as fluoroscopically guided interventions for the management of spinal mediated pain syndromes. Currently, he operates a pain clinic out of St. Joseph's Health Care that involves both pharmacotherapy as well as a variety of interventions for treatment and management of a variety of pain syndromes. His research interests focus on functional imaging for the interpretation of pain pathways.



Heather Getty earned her Ph.D. in Adult Clinical Psychology at the University of Windsor. Her training including her Pre-doctoral Residency at the London Health Sciences Centre has involved work in both traditional mental health treatment settings and in clinical health psychology programs for the treatment of chronic sleep and pain disorders. She was Postdoctoral Fellow in the Pain/Anxiety program at St. Joseph's Health Care 2002-2005 where she researched psychosocial predictors of disability among individuals with chronic pain. She conducts treatment, research and education at the St. Joseph's Health Care Pain Management Program.



Gloria Gilbert, physiotherapist, has continued to participate in the Western Interdisciplinary Pain Program as a community representative since 2007. A graduate of McGill University and Western (Masters of Science 2002), Gloria has

owned and operated The Downtown Clinic, Physiotherapy & Health Counselling in London since 1982. Gloria's professional area of interest is in the treatment and management of the patient with post-traumatic chronic (persistent) pain. Gloria notes that the longer she has followed these patients, the more she has become aware of other physical symptoms that often accompany a musculoskeletal injury.

Observing her patient's concerns with spatial awareness, dizziness and balance, the emphasis of her clinical work has been to delineate possible visual and vestibular deficits accompanying severe neck trauma.

The co-morbidity of a musculoskeletal/spinal injury with a mild traumatic brain injury (mTBI) continues to be investigated by many health professionals today.

Gloria is the secretary and newsletter editor of the Canadian Academy of Pain Management (CAPM) (www.canadianapm.com) and is credentialed as a Fellow of both the AAPM and CAPM.

Although The Downtown Clinic is no longer accepting new patients, Gloria continues to use her clinical experience to promote and educate patients and their health professionals about rehabilitation management for 'complex' injuries.



Dr. Patricia Morley-Forster is a Professor of Anesthesiology and Perioperative Medicine at Western Ontario. In February 2002, she was appointed as the inaugural Earl Russell Chair of Pain Research and Medical Director of the Comprehensive Pain Clinic at St. Joseph's Health Care London. Past research in the area of pain has been on the use of non-steroidal anti-inflammatory medication for postoperative pain relief and PCA opioids in labour analgesia. From 1990-2000, she was the Director of Obstetric Anesthesia at Western University before undertaking fellowship training in cancer pain management and chronic pain at the Wasser Clinic in Toronto. She is keenly interested in education in Pain Management and is the Chair of the Royal College Working Group in Pain Medicine, a committee mandated to develop a two-year accredited residency in Pain Medicine. Current research and clinical interests are neuropathic pain, acute pain management in chronic pain patients and topical analgesics.



Dr. Dwight Moulin is a Professor in the Departments of Clinical Neurological Sciences and Oncology and the Earl Russell Chair of the Pain Medicine Program at Western University. He is also the Medical Director of Pain and Symptom Management at the London Regional Cancer Program in London, Ontario. His

research interests include randomized controlled trials to determine the role of opioid analgesics in the management of chronic pain and observational studies to assess the impact of chronic pain in a variety of chronic neurological disorders. Current research projects include the role of intravenous lidocaine in the treatment of chronic pain and long term outcome of the management of neuropathic pain. He has chaired the Neuropathic Pain Special Interest Group of the Canadian Pain Society since 2005 and was the lead author of national consensus guidelines for the management of neuropathic pain in Canada.



Dr. Warren Nielson is an Adjunct Professor of Psychology at Western University. He is also the Clinical Director of the Rheumatology Day Programs at St. Joseph's Health Care, London. His research interests are in psychological factors associated with chronic pain, particularly in relation to Rheumatoid Arthritis, Osteoarthritis and Fibromyalgia Syndrome. He is also a member of the Canadian Scleroderma Research Group and on the Editorial Board of the Journal of Pain. Current studies focus on factors that influence outcomes of multidisciplinary treatment programs and motivational factors in pain self-management. Dr. Nielson is a Fellow of the Canadian Psychological Association.



Keith St. Lawrence focused his research on developing imaging methods for studying brain function under normal and disease conditions. I have a particular interest in near-infrared spectroscopy and magnetic resonance imaging since these modalities are non-invasive and extremely safe. As such, they can be adapted to a variety of applications ranging from functional brain mapping to early detection of brain ischemia. In terms of pain imaging, our team has been a leader in the application of a novel MRI-based blood flow technique for mapping the neural correlates of pain. Our current research focus is on using this technique to study the longitudinal changes in brain activation associated with chronic pain.

MISSION -

- To provide exemplary clinical care in prevention and treatment of debilitating pain states
- To continually improve pain management through research and education

- VISION -

The Interdisciplinary Pain Program at Western University identifies the study of pain as a priority that bridges academic disciplines. Integrating the fields of acute and chronic pain will encourage the development of new paradigms for prevention and treatment of chronic pain. Individuals with persistent chronic pain will be provided with timely access to an academic, research-focused facility with linkages to the community to promote continuity of care.

- VALUES -

- We understand that each individual's experience of pain is unique, affecting their work, their life and relationships in a complex manner.
- We believe in a broad interdisciplinary perspective on the understanding and treatment of pain.
- We value evidence-based practice.
- We support the ongoing search for and dissemination of knowledge in pain management.

- AWARDS -

Geoff Bellingham

Top 20% of teachers for 2012-13 academic year on Resident Evaluations for Department of Anesthesia & Perioperative Care

Eldon Loh

2013 CAPMR Best Poster Presentation (Review Category): Coping With Pain Post-Spinal Cord Injury: A Scoping Review

Patricia Morley-Forster

Gold Medal, Canadian Anesthesiologists' Society--In recognition of outstanding contributions to anesthesiology and leadership in advancing the area of chronic pain management

- RESEARCH FUNDING -

Geoff Bellingham

Tawfic Q, Bellingham GA, Schultz W, Clarke C, Grewal R and Murkin J. Near-infrared Spectroscopic Measurement of Tissue Oxygen Saturation and the Vascular Occlusion Test During Immobilization, Carpal Tunnel Syndrome and Pre- and Post-Stellate Ganglion Blockade for CRPS, 2013, Conditional approval for \$8,100

Bellingham G. Plasma Concentration of Ketamine and Norketamine in Patients on Oral Ketamine for Chronic Neuropathic Pain: A Pilot Study. Internal Research Fund, Anesthesia Department Fall 2013 Competition (co-applicant Patricia Morley-Forster)

Collin Clarke

Clarke C, Canadian Institutes of Health Research. Development of a Perfusion MRI Technique to Investigate Longitudinal Effects of Chronic Pain on Brain Function, April 2013 – April 2016, \$561,776 (co-investigator at Western)

Eldon Loh

Eng JJ, Teasell R, Miller WC, Wolfe D, Kwon B, Hsieh J, Townson A, Connolly S, Noonan V, Loh E. Spinal Cord Injury Review Evidence. Rick Hansen Institute, 2013 – 2014, \$150,000

Loh E, Walton DM, Trejos A, Dickey J, Katchabaw M. Establishing the Western Collaboration for Integration

of Consumer Technology and Healthcare (CICTH) research group. Schulich School of Medicine and Dentistry: Collaborative Research Seed Grant, 2013, \$20,800 (principal investigator)

Walton DM, Meh S, Loh E. Facet Versus Trigger Point Injection for Management of Chronic Muscular Neck Pain: A Randomized Clinical Trial and Creation of a Clinical Prediction Algorithm. Western Internal Research Fund Grant Funding, January 2013 – 2014, \$14,915

Loh E, Guy S, Mehta S. Pain Management: Development of Clinical Practice Guidelines for Pain Management in SCI (Phase 2). Ontario Neurotrauma Foundation/Rick Hansen Institute Grant, February 2013 – 2014, \$120,000

Loh E, Guy S. Current Pain Management Practices in SCI IMPACT KT/KM Incentive Funds, July 2014 – 2014, \$3,000

Patricia Morley-Forster

Faculty Supervisor: Dr. Qutaiba Tawfic-Mahodi. Low Dose Oral ketamine Adjuvant Therapy in Chronic Pain Patients: A Pilot Study to Assess Safety. Internal Research Fund Award from Dept. of Anesthesia and Perioperative Medicine, \$10,000, 2013

Dwight Moulin

Moulin DE. Canadian Institutes of Health Research. "Development of a

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Perfusion MRI Technique to Investigate Longitudinal Effects of Chronic Pain on Brain Function,” 2012 – 2016, \$558,534 (co-investigator at Western)

Moulin DE. CIHR – Patient-Oriented Research Program, Nova Scotia Health Research Fund, Dalhousie University. “Methadone for Neuropathic Pain – Double-Blind, Randomized, Controlled Trial,” 2013 – 2016, \$602,633 (co-investigator at Western)

Moulin DE. Pfizer Canada Inc. “Neuropathic Pain Database (NePDAT) – Long Term Study of the Outcome of Chronic Neuropathic Pain in Primary Care,” 2013 – 2015, \$500,000 (co-investigator at Western)

Warren Nielson

Canadian Institutes of Health Research, Emerging Team Grant: Rare Diseases. “Emerging Team: The Scleroderma Patient-Centered Intervention Network” Brett Thombs, Principal Investigator, 2012 – 2017, \$1,500,000 (in addition to \$205,000 partner funding from McGill University Faculty of Medicine (\$125,000), the Lady Davis Institute for Medical Research of the Jewish General Hospital (\$75,000) and the Scleroderma Association of British Columbia (\$5,000)

Melanie Racine

Award for excellence in gender, sex and health research from the

Canadian Institute of Health Research (CIHR) – Institute of Gender and Health (IGH), \$1000, December 2013

Postdoctoral grant – Beryl & Richard Ivey Rheumatology Day Programs, (supervisor W. Nielson), \$55,000, September 2012 - November 2013

Activity pacing in fibromyalgia. Earl Russell Trainee Grants in Pain Research, Western University, \$10,000, April 2012 - April 2013

Keith St. Lawrence

St. Lawrence K. Development of a Perfusion MRI Technique to Investigate Longitudinal Effects of Chronic Pain on Brain Function. Canadian Institutes of Health Research, April 2012 – 2016, \$558,534 (principle investigator)

Alex Thomas

Thomas AW (PI), Legros A. Hydro Quebec Research Project Phase III – magnetophosphenes and neurophysiological investigations of power-line frequency magnetic fields. Hydro Quebec/Electricite de France/Reseaux Transport Electricite, \$1,200,000, 2011 - 2014

Thomas AW. Industry match for Canadian Institutes of Health Research Industry-Partnered Chair, Hydro Quebec/Electricite de France/Reseaux Transport Electricite (Part of Phase III), \$300,000, 2011 – 2014

Legros A (PI), Thomas AW. Impact

of an extremely low frequency magnetic stimulus between 5 and 50 mT on human neurophysiological function: A multidimensional approach at 60 Hz. Canadian Institutes of Health Research Operating Grant, Industry Partnered, \$428,010, 2011 – 2014

Legros A (PI), Thomas AW. Human threshold detection facility, EPRI, \$120,000, 2012 - 2013

David Walton

Loh E, Walton DM, Trejos A, Dickey J, Katchabaw M. Establishing the Western Collaboration for Integration of Consumer Technology and Healthcare (CICTH) Research Group (Schulich School of Medicine and Dentistry Collaborative Research Seed Grant, \$21,300, 2013

Miller J, Pierrynowski M, MacDermid J, Gross A, Walton DM, Goldsmith C. Clinical and biological responses of people with neck pain being treated with manual therapy of varying duration and frequency: A pilot study, Physiotherapy Foundation of Canada, \$10,000, 2013

Walton DM, Loh E, Mehta S. Facet vs. trigger point injections for relief of chronic non-cancer neck pain, Lawson Health Research Institute Research Grant, \$14,915, 2013

- PUBLICATIONS -

Peer-Reviewed Articles

Gomez A, **Clarke CF**, Smith D, Yutkin V, Alzahrani A, Izawa J. Is postoperative epidural analgesia better than patient-controlled analgesia for radical cystectomy? *Clinical Journal of Urology*. Published online before print August 19, 2013, doi: 10.1177/2051415813500954

Clarke CF, Lindsay DR, Pyati S, Buchheit T. Residual limb pain is not a diagnosis: A proposed algorithm to classify post-amputation pain. *Clinical Journal of Pain* 2013 Jan 16 [Epub ahead of print]

Clarke CF, Lawrence KS. Functional imaging for interpretation of pain pathways: Current clinical application/relevance and future initiatives. *Curr Pain Headache Rep*. Feb; 17(2), 311, 2013

Velayudhan A, **Bellingham G**, **Morley-Forster P**. Opioid-induced Hyperalgesia. *Critical Care and Pain* 2012; Online Access Sept. 26, 2013

Lisk K, Flannery JF, **Loh E**, Richardson D, Agur AM, Woods NN. Determination of Clinically Relevant Content for a Musculoskeletal Anatomy Curriculum for Physical Medicine and Rehabilitation Residents. *Anat Sci Ed* 2013 Aug; epub ahead of print

Mehta S, McIntyre A, Willems G, Orenszuk K, Wolfe DL, Hsieh JT,

Short C, **Loh E, Teasell R.**
Neuropathic Pain Post Spinal Cord
Injury Part I: Systematic Review of
Physical and Behavioural Treatment.
Top Spinal Cord Inj Rehabil 19(1):
61-77, 2013

Mehta S, Orenczuk K, McIntyre A,
Willems G, Wolfe DL, Hsieh JT,
Short C, **Loh E, Teasell R** and
SCIRE Research Team.
Neuropathic Pain Post Spinal Cord
Injury Part 2: Review of Dorsal Root
Entry Zone Procedure. Top Spinal
Cord Inj Rehabil 19(1): 78-86, 2013

Watt-Watson J, Peter E, Clark J,
Dewar A, Hadjistavropoulos T,
Morley-Forster P et al. The Ethics
of Canadian Entry-to-Practice Pain
Competencies: How Are We Doing?
Pain Res Manage 18: 25-32, 2013

Lee SM, Landry J, Jones PM,
Buhrmann O, **Morley-Forster P.**
The Effectiveness of a Perioperative
Smoking Cessation Program: A
Randomized Clinical Trial. Anesth
Analg 2013

Morley-Forster PK, Pergolizzi JV,
Taylor R, Axford-Gatley RA, Sellers
EM. Mitigating the risk of opioid
abuse through a balanced
undergraduate pain medicine
curriculum. J Pain Res 6: 791-801,
2013

Fitzcharles MA, Ste-Marie PA,
Goldenberg DL, Pereira JX, Abbey
S, Choiniere M, Ko G, **Moulin DE** et
al. 2012 Canadian guidelines for the
diagnosis and management of

fibromyalgia syndrome: Executive
Summary. Pain Research and
Management 18(3): 119-126, 2013

Fitzcharles MA, Ste-Marie PA,
Goldenberg DL, Pereira JX, Abbey
S, Choiniere M, Ko G, **Moulin DE** et
al. Canadian Pain Society and
Canadian Rheumatology Association
recommendations for the rational
care for persons with fibromyalgia. A
summary report. Journal of
Rheumatology 40: 1388-1393, 2013

Racine M, Dion D, Dupuis G,
Guerriere D, Zagorski B, Choiniere
M and the Canadian STOP-PAIN
Research Group including **Moulin
DE.** The Canadian STOP-PAIN
Project: The Burden of Chronic
Pain—Does Sex Really Matter?
Clinical Journal of Pain 2013 July 24
(Epub ahead of print)

Kwakkenbos L, Jewett LR, Baron M,
Bartlett SJ, Furst D, Gottesman K,
Khanna D, Malcarne VL, Mayes MD,
Mouthon L, Poiraudou S, Sauve M,
Nielson WR et al. The Scleroderma
Patient-centred Intervention Network
(SPIN) Cohort: Protocol for a cohort
multiple randomized controlled trial
(cmRCT) design to support trials of
psychosocial and rehabilitation
interventions in a rare disease
context. BMJ Open 3(3): 1-11, 2013

Nielson WR, Jensen MP, Karsdorp
PA, Vlaeyen JWS. Activity pacing in
chronic pain: Concepts, evidence
and future directions. Clinical
Journal of Pain 29: 461-468, 2013

Cane D, **Nielson WR**, McCarthy M, Mazmanian D. Pain-related activity patterns: Measurement, interrelationships and associations with psychological functioning. *Clinical Journal of Pain* 29: 435-442, 2013

Racine M, Dion D, Dupuis Guerriere DN, Zagorski B, Choiniere M and the Canadian STOP-PAIN Research Group. The Canadian STOP-PAIN project: The burden of chronic pain—Does sex really matter? *The Clinical J Pain* (published ahead of print)

Racine M, Choiniere M, Nielson WR. Predictors of suicidal ideation in chronic pain patients: An exploratory study. *The Clinical J Pain* (published ahead of print)

Guy S, Mehta S, Leff L, **Teasell R**, **Loh E**. Anticonvulsant medication use for the management of pain following spinal cord injury. Systematic review and effectiveness analysis. *Spinal Cord* 52(2): 89-96, 2013

Modolo J, **Thomas AW**, Legros A. Possible mechanisms of synaptic modulation by extremely low-frequency magnetic fields. *Electromagnetic Biology and Medicine* 32(20): 137-144, 2013

Modolo J, **Thomas AW**, Legros A. Neural mass modeling of power line magnetic fields effects on brain activity. *Frontiers in Computational Neuroscience* 7(34): 1-15, 2013

Prato FS, Desjardins-Holmes D, Keenlside LD, DeMoor JM, Robertson JA, Stodilka RZ, **Thomas AW**. Magnetoreception in laboratory mice: Sensitivity to extremely low frequency fields exceeds 33nT at 30 Hz. *J R. Soc Interface* Jan 30;10(81): 1-8, 2013

Walton DM, McDermid JC, Russell E, Koren G, Van Uum S. Hair-normalized cortisol waking response as a novel biomarker of hypothalamic-pituitary-adrenal axis activity following acute trauma: A proof-of-concept study with pilot results. *Pain Research and Treatment* 2013;2013:876871.doi: 10.1155/2013/876871.

Shi Q, Sinden K, MacDermid JC, **Walton DM**, Grewal R. A systematic review of prognostic factors for return to work following work-related traumatic hand injury. *Journal of Hand Therapy*, 2013 (online first)

Gross, AR, Kaplan F, Huang S, Khan M, Santaguida PL, Carlesso LC, MacDermid JC, **Walton DM**, Kenardy J, Soderlund A, Verhagen A, Hartvigsen J. Psychological care, patient education, orthotics, ergonomics and prevention strategies for neck pain: A systematic overview update as part of the ICON project. *Open Orthopedics* 7: 530-561, 2013

MacDermid JC, **Walton DM**, Cote P, Santaguida PL, Gross A, Carlesso LC, ICON. Use of outcome measures in managing neck pain: An international multidisciplinary

survey. *Open Orthopedics* 7: 506-520, 2013

Peloso PM, Khan M, Gross AR, Carlesso L, Santaguida PL, Lowcock J, MacDermid JC, **Walton DM**, Goldsmith C, Langevin P, Shi Q. Pharmacological interventions including medical injections for neck pain: An overview as a part of the ICON project. *Open Orthopedics* 7: 473-493, 2013

Santaguida PL, Keshavarz H, Carlesso LC, Lomotam M, Gross A, MacDermid JC, **Walton DM**, ICON. A description of the methodology used in an overview of reviews to evaluate evidence on the treatment, harms, diagnosis/classification, prognosis and outcomes used in the management of neck pain. *Open Orthopedics* 7: 461-472, 2013

Graham N, Gross AR, Carlesso LC, Santaguida PL, MacDermid JC, **Walton DM**, Ho E, ICON. An ICON overview on physical modalities for neck pain and associated disorders. *Open Orthopedics* 7: 440-460, 2013

MacDermid JC, **Walton DM**, Miller J, ICON. What is the experience of receiving health care for neck pain? *Open Orthopedics* 7: 428-439, 2013

Walton DM, Carroll LJ, Kasch H, Sterling M, Verhagen Ap, MacDermid JC, Gross A, Santaguida PL, Carlesso L, ICON. An overview of systematic reviews on prognostic factors in neck pain: Results from the International Collaboration on

Neck Pain (ICON) project. *Open Orthopedics* 7: 494-505, 2013

Walton DM, MacDermid JC, Taylor T, ICON. What does 'recovery' mean to people with neck pain? *Open Orthopedics* 7: 420-427, 2013

Walton DM, MacDermid JC, Santaguida L, Gross A, Carlesso L, ICON. Results of an international survey of practice patterns for establishing prognosis in neck pain: The ICON project. *Open Orthopedics* 7: 387-395, 2013

Walton DM, Eilon-Avigdor Y, Wonderham M, Wik P. Exploring the clinical course of neck pain in physical therapy: A longitudinal study. *Archives of Physical Medicine and Rehabilitation*. Online first Sept. 18, 2013. Funded by UWO Academic Development Fund small project grant

Elliott JM, Rademaker A, Parrish TB, **Walton DM**. Quantification of cervical spine muscle fat: A comparison between T1-weighted and multi-echo gradient echo imaging using a variable projection algorithm (VARPRO). *BMC Medical Imaging* 2013;13:30. Doi: 10.1186/1471-2342-13-30

Walton DM, MacDermid JC. A brief 5-item version of the Neck Disability Index shows good psychometric properties. *Health and Quality of Life Outcomes* 11: 108, 2013. Doi: 10.1186/1477-7525-11-108

Walton DM, Giorgianni AA, Mascarenhas JC, West SC, Zammit CA. Risk factors for persistent problems following acute whiplash injury: Update of a systematic review and meta-analysis. *Journal of Orthopedic and Sports Physical Therapy* 43(2): 31-43, 2013

Walton DM, Wideman TH, Sullivan MJ. A Rasch analysis of the Pain Catastrophizing Scale supports its use as an interval-level measure. *Clinical Journal of Pain* 29(6): 499-506, 2013

- PUBLICATIONS -

Non-Peer Reviewed

Harth M. Cursing the Darkness: Reactions to Fibromyalgia. *Pain Res Manag* 18: 64-66, 2013

Toth C, **Moulin DE** (eds): *Neuropathic Pain – Causes, Management and Understanding*. New York, Cambridge University Press 2013

Kattan M, **Moulin DE**: Central Post-Stroke Pain. In: Toth C, Moulin DE (eds): *Neuropathic Pain—Causes, Management and Understanding*. New York, Cambridge University Press, 170-176, 2013

Racine M. Vivre avec la douleur chronique, c'est possible! Guides explicatifs, trucs et conseils afin de mieux gerer la douleur au quotidien. Trucs et conseils afin de maintenir une bonne santé mentale au

quotidien. Programmes de soin et sante pour tous (PSST!), Familiprix, February 2013

Racine M. Sante mentale masculine. Programmes de soin et santé pour tous (PSST!), Familiprix, November 2013

Abstracts

Burrell A, Rohekar S, **Harth M**, Pope J, Alsolaimani R, Haig S, Rohekar G. Isolated angiitis of the vasa vasorum: A comparison series of fourteen patients. *J Rheumatol* 40: 958-59, 2013

Robinson T, Roberts S, Agur A, **Loh E**. Neuromuscular partitioning of gastrocnemius based on intramuscular nerve patterns. *Clinical Anatomy* 26: 1055-1056, 2013

Scallan O, Roberts SL, Ravichandiran K, Parente DN, **Loh E**, Agur A. The course of L5-S3 branches innervating the sacro-iliac joint: Correlation with bony landmarks. *Clinical Anatomy* 26: 1057, 2013

Guy S, Mehta S, **Teasell R**, **Loh E**. Prevalence of pain in spinal cord injury: A scoping study. *J Rehabil Med* 45: 1095, 2013

Guy S, Mehta S, Hitzig S, **Loh E**. Coping with pain post-spinal cord injury: A scoping study. *J Rehabil Med* 45: 1095, 2013

Morley-Forster PK, Loh E, McCarthy G, **Bellingham G,** Walton D, Shadd J, Brymer C, **Moulin DE.** Pain in the undergraduate curriculum: The door opens. Pain Res Manage Mar-Apr 18(2): e8, 2013

Angle P, Douglas J, Lay C, Gawel M, Kronberg J, **Morley-Forster P** et al. Proposing formal diagnostic criteria for post-epidural PDPH. Can Anesth Soc Annual Scientific Meeting, Calgary, AB, 2013

Lee SM, Landry J, Jones P, **Morley-Forster P,** Buhrmann O. Effectiveness of a perioperative smoking cessation program: An RCT, American Society of Anesthesiologist Society Annual Meeting, San Francisco, CA, 2013 (faculty co-supervisor with Dr. P. Jones)

Morley-Forster P, McCarthy G. Case study: Concurrent disorder and substance abuse. American Pain Society Annual Meeting, Chicago, IL, May 9-13, 2013

Morley-Forster P, McCarthy G. Case study: Concurrent Disorder and Substance Abuse, American Society of Addiction Medicine Annual Meeting, New Orleans, 2013

Moulin DE, Clark AJ, Gordon A et al. Canadian multi-centre cohort study to determine the longterm outcomes of the management of chronic neuropathic pain. Pain Research and Management 18: 99, 2013

Fitzcharles MA, Ste-Marie PA, Goldenberg D, Pereira JX, Abbey S, Choiniere M, Ko G, **Moulin DE** et al. A paradigm change for the healthcare, patient and third party payer community reflected by the 2012 Canadian Fibromyalgia Guidelines. Pain Research and Management 18: 98, 2013

Fitzcharles MA, Ste-Marie PA, Goldenberg D, Pereira JX, Abbey S, Choiniere M, Ko G, **Moulin DE** et al. Contentious issues in the development of the 2012 Canadian Fibromyalgia Guidelines. Pain Research and Management 18: 98, 2013

Mehta S, Guy S, **Teasell R, Loh E.** Prevalence of pain in spinal cord injury: A scoping study. Journal of Rehabilitation Medicine 2013

Modolo J, **Thomas AW,** Legros A. Neural mass modeling of power line magnetic field effects on brain activity. Frontiers in Computational Neuroscience 7: 34, March 2013

**- NATIONAL AND
INTERNATIONAL
PRESENTATIONS AND
WORKSHOPS –**

Clarke CF. Principles of Surgery Curriculum: Pain Management in Surgical Patients, Western University, March 6, 2013

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Clarke CF. Anesthesia Resident
Lecture: Opioid Pharmacology,
London, ON, April 10, 2013

Clarke CF. St. Joseph's Health
Care Peri-Operative Nursing
Rounds: Optimizing Peri-Operative
Pain, London, ON, April 17, 2013

Clarke CF. Can-Am International
Anesthesia Conference: Can
Anesthetic Technique Influence
Cancer Recurrence? Niagara Falls,
ON, May 4, 2013

Clarke CF. Ontario Anesthesia
Society Meeting: Prediction,
Prevention and Management of
Chronic Post-Surgical Pain, Niagara
Falls, ON, September 28, 2013

Clarke CF. Ontario Hand and Upper
Limb Symposium: Complex
Regional Pain Syndrome, October 6,
2013

Clarke, CF. Principles of Surgery
Curriculum: Pain Management in
Surgical Patients, Western
University, October 16, 2013

Guy S, Mehta S, Hitzig S, **Loh E.**
Coping With Pain Post-Spinal Cord
Injury: A Scoping Review. TRI Pain
Management Conference, Toronto,
ON, March 2013

Guy S, Mehta S, **Teasell R, Loh E.**
Prevalence of Pain in SCI: A
Scoping Review. TRI Pain
Management Conference, Toronto,
ON, March 2013

Robinson T, Roberts S, McKee N,
Agur A, **Loh E.** Intramuscular
Innervation of the Medial and Lateral
Gastrocnemius: Is There
Symmetry? Gallie Day, University of
Toronto, Toronto, ON, May 2013

Morley-Forster PK, Loh E,
McCarthy G, **Bellingham G,** Walton
D, Shadd J, Brymer C, **Moulin DE.**
An Undergraduate Pain Curriculum:
The Door Opens. Canadian Pain
Society Meeting, Winnipeg MB, May
2013

Guy S, Mehta S, Hitzig S, **Loh E.**
Coping With Pain Post-Spinal Cord
Injury: A Scoping Review. CAPMR,
Montreal, QC, June 2013

Guy S, Mehta S, **Teasell R, Loh E.**
Prevalence of Pain in SCI: A
Scoping Review. CAPMR, Montreal,
QC, June 2013

Robinson T, Roberts S, Agur A, **Loh
E.** Neuromuscular Partitioning of
Gastrocnemius Based on
Intramuscular Nerve Patterns.
American Association of Clinical
Anatomists Annual Meeting, Denver,
CO, July 2013

Scallan O, Roberts SL,
Ravichandiran K, Parente DN, **Loh
E,** Agur A. The Course of L5-S3
Branches Innervating the Sacro-Iliac
Joint: Correlation with Bony
Landmarks. American Association
of Clinical Anatomists Annual
Meeting, Denver, CO, July 2013

MacDougall K, Levine A, Parrent A.
Techniques in Root Stimulation:

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Accessing the Root of the Pain,
Victoria, BC, September 2013

MacDougall K, Levine A, Parrent A.
Nerve Root Stimulation for
Neuropathic Pain, Victoria, BC,
September 2013

Morley-Forster PK. The Biology of
Persisting Pain. St. Joseph's Pain
Program Patient Education Day,
London, ON, January 11, 2013

Morley-Forster PK. Chronic Pain
Assessment and Management in the
Addicted Patient: Parts 1 and 2,
Meds IV, Western University,
Integration, Consolidation and
Enrichment Course in Pain Medicine,
Schulich School of Medicine, April 4
and April 11, 2013

Morley-Forster PK. Assessment
and Management of Chronic Pain
Parts 1 and 2, Anesthesiology
Resident Core Curriculum Half Day,
May, London, ON, May 1, 2013

Morley-Forster PK. Chronic Pelvic
Pain: The Conversion from Visceral
to Neuropathic Pain. Invited lecture
to University of Michigan Pain
Fellows, Ann Arbor, MI, May 12,
2013

Morley-Forster PK. Non-opioid and
Adjuvant Pharmacotherapy in
Chronic Pain. Special Interest
Elective in Chronic Non-Cancer Pain
for Family Medicine Residents,
London, ON, June 19, 2013

Morley-Forster PK. Pelvic Pain:
Emerging View, New Treatment,

Hugh Allen Day Dept. of Obstetrics
and Gynecology, London Health
Sciences Centre, London, ON,
September 2013

Morley-Forster PK. Pain Medicine:
A New Royal College Subspecialty
Program, Visiting Professor to Dept.
Anesthesia, Dalhousie University,
Halifax, NS, November 13, 2013

Moulin DE. Strategies for Reducing
the Burden of Herpes Zoster and
Postherpetic Neuralgia (Chair),
Winnipeg, MN, May 10, 2013

Moulin DE. Cannabis for
Neuropathic Pain. Neuropathic Pain
Special Interest Group of the
International Association for the
Study of Pain, Toronto, ON, May 25,
2013

Rohekar S, **Nielson WR**, Pope J,
Arnott D. A regional rheumatology
program to facilitate access to
appropriate rheumatology care. 68th
Canadian Rheumatology Association
Annual Scientific Meeting, Ottawa,
ON, February 2013

Nielson WR. Give pace a chance:
Activity regulation and chronic pain.
Invited plenary address at the
opening of TRACE Centre for
Translational Psychological
Research, Ziekenhuis Oost-
Limbert, AULA Campus Sint-Jan,
Genk, Belgium, February 2013

Racine M. Predictors of suicidal
ideation in chronic pain patients: an
exploratory study. Breakfast and
Lean, Western Pain Medicine

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Program, St. Joseph's Health Care,
London, Ontario, June 2013

Guy S, Mehta S, **Teasell R, Loh E.**
Prevalence of pain in spinal cord
injury: A scoping study. Pain
Management Conference: Looking to
the Future: Preparing Patients for
Reintegration, Toronto, ON, March 4,
2013

Mehta S, Guy S, **Teasell R, Loh E.**
Prevalence of pain in spinal cord
injury: A scoping study. London
Health Research Day: Driving
Innovation Through Collaboration,
London, ON, March 19, 2013

Teasell R, Managing chronic pain:
Giving is not giving up.
Rehabilitation and Life Care
Planning Symposium, London, ON,
April 11, 2013

Mehta S, Guy S, **Teasell R, Loh E.**
Prevalence of pain in spinal cord
injury: A scoping study. 2013
Annual Scientific Meeting of
Canadian Association of Physical
Medicine and Rehabilitation,
Montreal, PQ, May 29-June 1, 2013
(Best Review Poster)

Modolo J, **Thomas AW,** Legros A.
Evaluation of 60 Hz effects
thresholds on the EEG using
biophysical modeling. Joint Meeting
of the European Bioelectromagnetics
Association and of the
Bioelectromagnetics Society,
Thessaloniki, Greece, June 10-14,
2013.

Legros A, Modolo J, Goulet D,
Plante M, Souques M, Deschamps
F, Ostigui G, Mezei G, Lambrozo J,
Thomas AW. Magnetophophene
perception and associated
neurophysiological responses of the
human central nervous system
exposed to 50 and 60 Hz magnetic
fields of up to 50 mT. CIGRE EMF
International Colloquium, Nara,
Japan, October 14-18, 2013

Walton DM. Whiplash: Is there a
lesion and, if so, where? Western
University 2013 Motor Vehicle Safety
Research Meeting, London, Ontario,
2013

Walton DM. Helping clinicians make
the invisible visible. Grand Rounds,
Northwestern University Physical
Therapy Program, Chicago, Illinois,
U.S., 2013

Walton DM. Measure the
experience of neck pain for
prognosis and treatment decisions.
Evidence-Based Solutions for
Improving Cervical Spine Health and
Function Conference, Chicago,
Illinois, U.S., 2013

- UNDERGRADUATE EDUCATION PROGRAM -

The Western Pain Program continues to be very active in pain education at the undergraduate level. The Pain Medicine Course was delivered in 4th year as part of the Integration, Consolidation and Enrichment (ICE) Program. This course has been completely revised with a doubling of the teaching hours to 24. New topics included pain in primary care, chronic pain in the elderly, pain assessment and management in the addicted patient and management of chronic mechanical neck pain. The evaluations were excellent for each seminar and for the course as a whole. The median score across the board was 4/5 or “very good”. A Means Assessment carried out pre- and post-course showed a substantial improvement in comfort level in assessing and managing chronic pain. There was also a substantial improvement in knowledge base regarding various pain topics.

- POSTGRADUATE / FELLOW EDUCATION PROGRAM -

Anesthesiology residents have a one-month mandatory rotation in the SJHC Interdisciplinary Pain Clinic. Neurology and physiatry residents also attend this clinic on a selective basis. Fellows in the Pain Program for 2013 were Dr. Qutaiba Tawfik and Dr. Maan Kattan. Dr. Tawfik carried out a research project on the bioavailability of oral ketamine by measuring serum levels following ingestion of oral ketamine capsules. Dr. Kattan carried out a study on the management of cancer pain at the London Regional Cancer Program and he also co-authored a book chapter on the management of central post-stroke pain.

Ms. Sara Ibrahim is a Masters student who carried out a qualitative descriptive study on the perception of community-dwelling older patients following discontinuation of Oxycontin for their pain management. Ms. Ibrahim is a Masters candidate at the University of Waterloo School of Pharmacy and she was supervised by Dr. Pat Morley-Forster.

The Royal College Pain Medicine Subspecialty Program has now been fully accredited by the Royal College of Physicians & Surgeons of Canada. This 2-year Fellowship in Pain Medicine is scheduled to start in July 2014. Dr. Geoff Bellingham has taken on the role of Program Director for Western and he will require input from various stakeholders including Psychology, Psychiatry, Pediatrics, Neurology and Rheumatology to define the curriculum. We anticipate having funding for two residents at Western beginning in July 2014.

- CONTINUING MEDICAL EDUCATION PROGRAM -

The westernpain.ca website was up and running in 2013 and all parties report that the website is user friendly and very informative; this includes healthcare professionals as well as pain patients. The history of the Western Pain Program including the establishment of the Earl Russell Chair in Pain Medicine is also on the website. Various pain rounds, the annual reports of the Western Pain Program and the awardees of the Earl Russell Trainee Grant competitions are also included in the Western Pain website with regular updates.

Interdisciplinary pain rounds and conferences continue to be very popular at Western. A list of seminar topics and lectures follows on the next page.

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- INTERDISCIPLINARY PAIN ROUNDS AND CONFERENCES 2013 -

- January 30 Sleep Apnea and Chronic Pain Patients: Complex Interactions and Therapeutic Implications. **Dr. Charles George**, Professor of Medicine, Chair Division of Respiriology, Western University, Director Sleep & Apnea Assessment Unit, London Health Sciences Centre, London, Ontario
- February 27 Antidepressants & Anticonvulsants for Chronic Pain: How Well Do RCTs Emulate the Pain Clinic Experience? **Dr. Ian Gilron**, Director Clinical Pain Research, Professor Departments of Anesthesiology & Perioperative Medicine and Biomedical & Molecular Sciences, Queen's University, Kingston, Ontario
- March 27 Clinical and Political Landscape in Ontario in Regards to (a) Opioids and (b) Pain Management. **Dr. Angela Mailis-Gagnon**, Director Comprehensive Pain Program and Senior Investigator Krembil Neuroscience Centre, Toronto Western Hospital, University Health Network and Professor Department of Medicine, University of Toronto, Toronto, Ontario
- April 24 Chronic Orofacial Pain: Mechanisms and Clinical Correlates. **Dr. Barry Sessle**, Professor and Canada Research Chair, Faculties of Dentistry & Medicine, University of Toronto and Consultant Wasser Pain Management Clinic, Mount Sinai Hospital, Toronto, Ontario
- May 29 The Burden of Herpes Zoster and Post-Herpetic Neuralgia in Canada: An Epidemiological Perspective. **Dr. Melanie Drolet**, Epidemiologist, Centre de Recherche du CHU de Quebec, Adjunct Professor Faculty of Medicine, Laval University, Quebec City, Quebec
- September 25 Combat: Pain in War Memoirs from the American Civil War to Present. **Joanne Bourke**, Professor Department of History, Classics & Archeology, Birkbeck College, University of London, London, England
- October 23 A Unique Presentation of Phantom Limb Pain. **Dr. Ricardo Viana**, Assistant Professor Western University, Department of Physical Medicine & Rehabilitation, Parkwood Hospital, London, Ontario
- November 27 Marijuana—Friend or Foe? What the Canadian Physician Needs to Know About Cannabinoids. **Dr. Ilan Nachim**, Toronto, Ontario