

THE UNIVERSITY OF WESTERN ONTARIO  
INTERDISCIPLINARY PAIN PROGRAM

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ANNUAL REPORT

2008

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**- IN MEMORIAM -**



Dr. Earl Stuart Russell, University of Western Ontario Professor Emeritus, Alumnus (MD '50, DSc. '06) and Philanthropist, died peacefully at home on October 12, 2008. Over the past ten years, Dr. Russell gave more than \$2.5 million to the Schulich School of Medicine & Dentistry to fund the Earl Russell Chair in Pain Management. As a result of his generous gifts during his lifetime, Western is a leading centre for education and research on alleviating human pain.

Dr. Russell was raised on a farm in Saskatchewan and obtained his high school diploma by correspondence while working full time as a farm hand during his teenage years. He obtained his undergraduate degree in mathematics at the University of Saskatchewan. He served in World War II as an officer in the Royal Canadian Signal Corps. He returned after the war to study medicine, first at the University of Saskatchewan, then at The University of Western Ontario, graduating with his M.D. in 1950. Dr. Russell first developed an interest in the treatment of pain while serving as a young medical officer in the Korean War. After his discharge from the military, he underwent formal training in anesthesia at Kingston General Hospital, getting his certificate in this specialty in 1955. He then moved his family to Nigeria to become a founding member of the medical faculty at the University of Lagos and worked there in the early 1960s before returning to Queen's University in Kingston.

In 1968, he was recruited to The University of Western Ontario specifically for his skills in chronic pain management and obstetric analgesia. He was largely responsible for the provision of epidurals for the relief of labour pain in the early 1970s in London. He served as Chief of Anesthesia at Victoria Hospital and President of its medical staff association. In 1982, Dr. Russell retired from U.W.O. after obtaining the rank of Professor Emeritus. In 2004, he was awarded a Distinguished Lifetime Achievement Award from the Canadian Pain Society and, in 2006, he was awarded an honorary Doctorate in Science by U.W.O.

Dr. Russell was a devoted pain specialist who continued to practice pain medicine in community hospitals around London until well into his 80s – in fact, until about a year before he died. Dr. Russell was an incredibly generous and compassionate physician who left his mark on pain research and management both nationally and internationally. He is survived by his wife of 61 years, Marjorie (Midge), four daughters, eleven grandchildren and five great-grandchildren.

Pat Morley-Forster, M.D., FRCP(C)  
Department of Anesthesiology & Perioperative Medicine  
University of Western Ontario

**- EXECUTIVE SUMMARY -**

**Pain Program Annual Report 2008**

The University of Western Ontario Interdisciplinary Pain Program had another very successful year in research, educational and clinical care activities through 2008.

In keeping with our strategic plan, we have continued our clinical analgesic studies involving neuropathic pain. Our major project is a multi-centre cohort study to determine the longterm outcome of the management of neuropathic pain. This study, funded by Canadian Foundation for Innovation and Pfizer Canada, is now up and running at U.W.O., McMaster, University of Toronto, University of Ottawa and McGill University and will continue for the next three years. C.I.H.R.-funded trials investigating the role of cannabis in the management of chronic pain and the role of sublingual methadone in cancer pain have now been completed and publications are expected in the next year. The Imaging group at Lawson Health Research Institute under the direction of Dr. Frank Prato continues pain imaging studies related to complex regional pain syndrome and the role of weak magnetic fields in alleviating chronic pain.

We are very excited about the initiation of Earl Russell Trainee Pain Research Grants in 2008. These are mini-grants in the amount of \$5,000 to provide seed funding for trainees in pain research at U.W.O. These grants are adjudicated by a panel from the U.W.O. Pain Research Scientific Advisory Board and are awarded in April and October of each year. The successful investigators and their projects for 2008 are detailed under Awards on page 10.

This was a very special year for educational programs initiated by the U.W.O. Pain Program. There is a pressing need to standardize pain assessment and management training at the Fellowship level and Dr. Pat Morley-Forster, as our Medical Director, has recognized this. She has spearheaded an application to the Royal College to recognize Pain Medicine as a subspecialty of Anesthesiology. This has been accepted in principle by the Royal College as Phase I of this application. Phase II is now under way and requires the creation of a curriculum and specification of entry paths. The creation of Pain Medicine as a subspecialty discipline of the Royal College will be a major advance in pain education in Canada.

In October 2008, we organized the provincial meeting of the Interurban Pain Association. This meeting which is held every second year attracted approximately 120 participants. The conference involved speakers of national and international stature including Dr. Robert Dworkin from the University of

Rochester, New York, who gave the keynote address on neuropathic pain research and management. Another major educational event for 2008 was the annual Neuropathic Pain Workshop which was held in November at the St Joseph's Health Care Interdisciplinary Pain Clinic. The Pain Clinic continues to be the focus of chronic pain assessment and management and provides patients for our workshops.

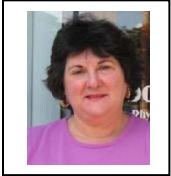
Interdisciplinary Pain Rounds and Conferences continue to be very popular at U.W.O. A list of speakers and topics is included on page 22.

The following report details these accomplishments of the U.W.O. Interdisciplinary Pain Program for 2008.

A handwritten signature in black ink that reads "Dwight Moulin". The signature is written in a cursive, flowing style.

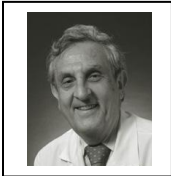
Dwight Moulin, M.D., FRCP(C)  
Earl Russell Chair  
U.W.O. Pain Program

**- SCIENTIFIC ADVISORY BOARD MEMBERS -**

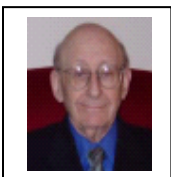


**Gloria Gilbert** is a graduate of McGill University (B.Sc.PT) who obtained a Masters of Science degree in physical therapy from the University of Western Ontario in 2002. Her thesis topic was 'Cervico-cephalic kinesthesia in patients with chronic neck pain'. In 1982, Gloria opened The Downtown Clinic, Physiotherapy & Health Counseling, the first privately owned physiotherapy clinic in London. Her professional area of interest is in the treatment and management of the patient with chronic (persistent) pain as well as in the rehabilitation of patients with complex injuries. An involved member of the Canadian Pain Society, she is also a member of the Scientific Advisory Board of the Interdisciplinary Pain Program at UWO. Gloria represents her profession on the Executive Committee of the Canadian Academy of Pain Management ([www.canadianapm.com](http://www.canadianapm.com)). In 2006, she was a member of the Literature search and Review Strategy Committee for the WSIB Program of Care for Chronic Pain.

Gloria has continued to be a mentor to her physiotherapy colleagues in the area of chronic pain management. She has conducted workshops for physiotherapists and serves as a consultant to her professional organization, her colleagues and other health professionals on the necessity of providing a Team approach for pain management programs to be successful.



**Dr. Manfred Harth** is Emeritus Professor of Medicine at the University of Western Ontario and is an honorary member of the Department of Medicine at St. Joseph's Hospital and London Health Sciences Centre. His research interests are in the area of Fibromyalgia.



**Dr. Harold Merskey** is Professor Emeritus in the Department of Psychiatry at the University of Western Ontario, the past editor of Pain Research and Management, the journal of the Canadian Pain Society.

He has a longstanding interest and numerous publications in the field of chronic pain. His latest book is The Paths of Pain edited by H. Merskey, J. Loeser and R. Dubner published in 2005 by the International Association for the Study of Pain to mark its 30<sup>th</sup> anniversary.



**Dr. Patricia Morley-Forster** is an Associate Professor of Anesthesiology at the University of Western Ontario, 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, in February 2002. Past research in the area of pain has been on the use of non-steroidal anti-inflammatory medication for postoperative pain relief. From 1990-2000, she was the Director of Obstetric Anesthesia at the University of Western Ontario before undertaking fellowship training in cancer pain management and chronic pain at the Wasser Clinic in

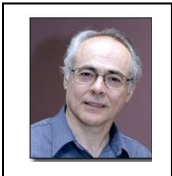
Toronto. She is keenly interested in education in Pain Management and, in 2006, was given the Departmental Award for Best Clinical Teacher for Fellows. Current research and clinical interests are neuropathic pain, acute pain management in chronic pain patients and the effects of opioids on the endocrine system.



**Dr. Dwight Moulin** is a Professor in the Departments of Clinical Neurological Sciences and Oncology and the Earl Russell Chair of Pain Research at the University of Western Ontario. He is also the Medical Director of Pain and Symptom Management at the London Regional Cancer Program and Head of the Division of Neurology at Victoria Campus of the London Health Sciences Centre 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 safety and efficacy of marijuana in the treatment of chronic pain and longterm outcome of the management of neuropathic pain.



**Dr. Warren Nielson** is an Associate Professor of Medicine (Rheumatology) and Adjunct Professor of Psychology at the University of Western Ontario. He is also the Clinical Director of the Rheumatology Day Programs at the Arthritis Institute and 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. Current studies focus on factors that influence outcomes of multidisciplinary treatment programs. Dr. Nielson is a Fellow of the Canadian Psychological Association.



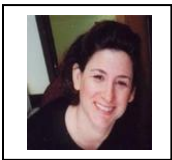
**Dr. Frank Prato** is a Professor in the Departments of Radiology and Nuclear Medicine and Medical Biophysics. His research interests are primarily in the area of imaging of brain function, both magnetic resonance imaging and nuclear medicine and how it is disturbed in cortical and vascular disease processes. He has also studied the mechanisms by which magnetic fields alter expression of opioid-induced analgesia. Animal and human studies have shown that combinations of magnetic fields can elicit analgesia equivalent to a modest dose of morphine. He plans to develop methods of imaging guided therapy for magnetic field treatment of pain.



**Dr. Gary Rollman** is a Professor in the Department of Psychology at the University of Western Ontario. He served as President of the Canadian Pain Society 2003 to 2005. For the past 35 years, he has studied individual differences in pain perception in both laboratory and clinical settings, particularly focusing on disorders such as fibromyalgia and temporomandibular pain for which women show disproportionate incidence and prevalence. Dr. Rollman obtained a Ph.D. in experimental psychology at the University of Pennsylvania, spent two years as an NIH post-doctoral fellow at Princeton University and joined the Department of Psychology at the University of Western Ontario in 1969.

Work in his laboratory emphasizes behavioural studies of pain measurement and pain control in humans. Psychophysical techniques are used to study individual and gender differences, the effects of endogenous pain on responsiveness to induced pain, sensory and affective component of the pain experience, models of central inhibition and plasticity and temporal summation. More clinical studies include neuroendocrine indices of stress and psychosocial measures of affect and coping. Particular attention is paid to the relationship between experimental models of pain modulation and issue in the assessment and management of clinical pain disorders.

Dr. Rollman is internationally known for his innovative and influential research on pain responsiveness in humans. He is one of few investigators who studies pain in both laboratory and clinical settings using psychophysical and psychosocial techniques to understand the underlying basis of individual differences in pain, particularly those related to sex and gender.



**Dr. Leora Swartzman** is an Associate Professor at the University of Western Ontario in the Departments of Psychology and Medicine (Clinical Pharmacology). One of her research interests is the role of psychological factors in the perception and reporting of physical symptoms. Her current CIHR-funded research is focused on understanding the distinction people make between “traditional medical” and “alternative” treatment approaches for fibromyalgia and arthritis. She is the co-investigator with Dr. Gilles Lavigne, McGill Faculty, of the CIHR-funded New Emerging Team (NET) grant on placebo mechanisms in clinical trials for pain and sleep disorders.



**Dr. Alex Thomas** is the Bioelectromagnetics Scientist and CIHR Industry Chair in Bioelectromagnetics at the Lawson Research Institute, St. Joseph’s Health Care (London) and an Associate Professor in the Departments of Medical Biophysics and Diagnostic Radiology, Schulich School of Medicine and Dentistry (WUO) and V-P Research for Fralex Therapeutics Inc. (Toronto; TSX:FXI). Dr. Thomas is a multidisciplinary researcher and professor with degrees in Medical Biophysics, Neuroscience, Psychology, Geotechniques and Geology. He has had an extensive career in industry and academia and has formed spin-off corporations and invented and patented methods, devices and technologies. Dr. Thomas’ interests are clearly in the development of new technologies related to diagnosis and therapy including pain and the discovery of new treatment and functional imaging modalities and understanding pain and placebo mechanisms.

**- 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 the University of Western Ontario 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 -**

**Clarke C**, Morley-Forster P, St. Lawrence K, Owen D. Neuro-imaging of lidocaine-induced analgesia in complex regional pain syndrome.  
Earl Russell Trainee Pain Research Award, \$5000.00  
April 2008

**Wyne A**, Sur IR, Clark W. Pain management and opioid use in end-stage renal disease.  
Earl Russell Trainee Pain Research Award, \$5000.00  
October 2008

**Dwight E. Moulin, MD, FRCP(C)**  
2007-2008 Best Doctors in Canada

**Alex W. Thomas, PhD**  
2008-2011 CIHR Industry Chair (sponsored by Hydro Quebec and Electricity de France)

**- RESEARCH FUNDING -**

**Shalini Dhir**

Department of Anesthesia and Perioperative Medicine Internal Grant 2008, London Health Sciences Centre. Local anesthetic dilution for peripheral nerve blocks: Comparative evaluation of saline vs 5% dextrose: Randomized double-blind clinical trial. \$5,000

**Patricia Morley-Forster**

Moulin DE, Morley-Forster PK et al. Multi-centre neuropathic pain database study: Long term outcome of the pharmacologic management of neuropathic pain. \$853,088 over 3 years (Pfizer Canada) 2007-2010

Dr. Pamela Angle (principal investigator). Post-dural puncture headache clinical trials group, PSI, \$149,000 2007 – Present

**Dwight Moulin**

Lavigne G, Swartzman L, Moulin DE et al. Canadian Institutes of Health Research – New Emerging Team Grant Program, “Disentangling the placebo effect: the relative roles of pharmacology and response expectancies in pain and sleep,” July 1, 2003 – July 1, 2008, \$1,192,000 over 5 years (one of six co-investigators).

Hagen NA, Moulin DE et al. Canadian Institutes of Health Research – New Emerging Team Grant Program, “Cancer Pain Research Network,” July 1, 2004 – July 1, 2009, \$1,363,586 over 5 years (co-applicant at Western).

Hagen NA, Moulin DE et al. Alberta Cancer Board – High Risk Innovation Grant Application, “Strategies to improve bone pain in breast cancer patients – Phase II open label study of sublingual methadone for breakthrough pain,” March 1, 2006 – February 28, 2008, \$102,004 (co-applicant at Western).

Prato FS, Thomas AW, Moulin DE et al. Canadian Institutes of Health Research – Operating Grant, “Mechanisms by which low frequency magnetic fields interact with biological systems,” April 1, 2006 – April 1, 2011, \$930,175 (co-applicant at Western).

Moulin DE et al. Pfizer Canada Inc. “Multi-centre neuropathic pain database to study the long term outcome of chronic neuropathic pain,” September 2007 – September 2010, \$853,000 (overall principal investigator).

**Gary Rollman**

Rollman G et al. Natural Sciences and Engineering Research Council: “Psychophysical Studies of Pain and Touch” - \$75,000.00 awarded in 2004 to cover a period of five years at \$15,000.00 per year ending in 2009.

Rollman G et al. Canadian Institutes of Health Research, New Emerging Team (NET) Grant: “Specifying the Non-Specifics: Disentangling Elements of the ‘Placebo Effect’ in the Treatment of Acute and Chronic Pain” (with Swartzman, L., Lavigne, G., & others) - \$1,192,000.00 awarded in 2003 to cover a period of

five years at \$238,400.00 per year ending in 2008.

**Alex Thomas**

2008-2011: CIHR Industry Chair, \$210,000

2008-2011: Hydro Quebec and Electricity de France. Hydro Quebec Research Phase II: Industry match for CIHR UI Chair, \$210,000.

**- PUBLICATIONS -**

**Peer-Reviewed Articles**

**Dhir S**, Singh S, Parkin J, Hannouche F, Richards RS. Multiple finger joint replacement and continuous physiotherapy using ultrasound guided, bilateral infraclavicular catheters for continuous bilateral upper extremity analgesia. *Can J Anes* 55(12): 880-881, 2008

**Dhir S**, Balasubramanian S. Regional anesthesia and pre-existing neurological disease. *Can J Anesth* 55(12): 876-877, 2008

**Dhir S**, Ganapathy S. Comparative evaluation of ultrasound-guided continuous infraclavicular brachial plexus block with stimulating catheter and traditional technique: A prospective randomized trial. *Acta Anesthesiol Scand* 52: 1158-1166, 2008

**Dhir S**, Balasubramanian S, Ross D. Ultrasound guided peripheral regional blockade in patients with Charcot-Marie-Tooth disease: A

review of three cases. *Can J Anesth* 55(8): 515-520, 2008

**Dhir S**, Ganapathy S. Use of ultrasound guidance and contrast enhancement: A study of continuous infraclavicular brachial plexus approach. *Acta Anesthesiol Scand* 52: 338-342, 2008

Brosseau L, Wells GA, Tugwell P, Egan M, Wilson KG, Dubouloz CJ, Casimiro L, Robinson VA, McGowan J, Busch A, Poitras S, Moldofsky H, **Harth M**, Finestone HM, **Nielson W**, Haines-Wangda A, Russell-Doreleyers M, Lambert K, Marshall AD, Veilleux L, Ottawa Panel Members. Ottawa Panel evidence-based clinical practice guidelines for aerobic fitness exercises in the management of fibromyalgia: Part I. *Phys Ther* 88: 857-871, 2008

Brosseau L, Wells GA, Tugwell P, Egan M, Wilson KG, Dubouloz CJ, Casimiro L, Robinson VA, McGowan J, Busch A, Poitras S, Moldofsky K, **Harth M**, Finestone HM, **Nielson W**, Haines-Wangda A, Russell-

**Harth M**. Stopping late whiplash: Which way to utopia? *J Rheumatol* 35: 2303-2305, 2008

Haggarty JM, Cernovsky Z, Bedard M, **Merskey H**. Suicidality in a sample of Arctic households. *J Suicide and Life-threatening Behaviour*, 2008.

Neimat JS, Hamani C, Giacobbe P, **Merskey H**, Kennedy SH, Mayberg HS and Lozano AM. Neural stimulation successfully treats

depression in patients with prior ablative cingulotomy. Clinical Case Conference from Toronto Western Hospital. Am J Psychiatry 165, 6: 687-693, June 2008

**Merskey H.** Social influences on the concept of fibromyalgia. CNS Spectrums (Internat J Neuropsychiat Med 13, 3 (Supp 5): 18-21, 2008

Wallace M, Rauck RL, **Moulin DE** et al. Conversion from standard opioid therapy to once-daily oral extended-release hydromorphone in patients with chronic cancer pain. Journal of International Medical Research 36: 343-352, 2008

Sumpton JE, **Moulin DE.** Fibromyalgia: Presentation and management with a focus on pharmacological treatment. Pain Research and Management 13(6): 477-483, 2008

Molton IR, Jensen MP and **Nielson WR.** Cardenas D & Ehde DM. A preliminary evaluation of the motivational model of pain self-management in persons with spinal cord-related pain. Journal of Pain 2: 606-612, 2008

**Nielson WR,** Jensen MP, Ehde DM, Kerns RD and Molton IR. Further development of the Multidimensional Readiness to Change Questionnaire: The MPRCQ2. Journal of Pain 9: 552-565, 2008

Owen DG, Bureau Y, **Thomas AW,** **Prato FS,** St. Lawrence KS. Quantification of pain –induced changes in cerebral blood flow by

perfusion MRI. Pain 136: 85-96, 2008

Burgess RA, Thompson RT and **Rollman GB.** The effects of forearm posture on wrist flexion in computer workers reporting chronic upper limb pain. BMC Musculoskeletal Disorders 9: 47-54, 2008.

**Prato FS,** Desjardins-Holmes D, Keelaside LD, McKay JC, Robertson JA, **Thomas AW.** Light alters nociceptive effects of magnetic field shielding in mice: Intensity and wavelength considerations. J R Soc Interface. June 26, 2008

#### - PUBLICATIONS -

##### Non-Peer Reviewed

**Dhir S,** Ganapathy S. Trauma and Regional Anesthesia. In: Smith CE (ed), Trauma Anesthesia, Cambridge University Press, 2008

**Dhir S,** Velayutham V, Ganapathy S. Pharmacological Management of Trauma. In: Smith CE (ed), Trauma Anesthesia, Cambridge University Press, 2008

**Merskey H.** Hysteria. 100 words. Brit J Psychiat 193, 2008

**Merskey H.** (Letter to the Editor). The classification of fibromyalgia. Pain 135: 315, 2008

**Merskey H.** (Guest Editorial). Allodynia: The use of the term. E-News for Somatosensory Rehab,

2008; 5,2: 47-53 (electronic publication)

**Merskey H.** Taxonomy and classification of chronic pain syndromes. In: HT Benzon, JP Rathmell, CL Wu, DC Turk & CE Argoff (eds). *Raj's Practical Management of Pain*, 4<sup>th</sup> Edition. Mosby/Elsevier, 2: 13-18, 2008

**Merskey H.** Allodynia. Article placed on Website of the International Association for the Study (electronic publication)

**Merskey H.** Die Leugnung von Schleudertrauma-Folgen: Cui bono? (Trans. C. Grill). In: M Graf, C Grill & HD Wedig (eds). *Beschleunigungsverletzung der Halswirbelsäule./HWS Schleudertrauma (Acceleration Injury of the Cervical Vertebral column/Cervical Sprain – Whiplash Injury)*. Heidelberg, Steinkopff Verlag, 2008

**Moulin DE.** Book Review – Central Pain Syndrome: Pathophysiology, Diagnosis and Management. *Canadian Journal of Neurological Sciences* 35: 399, 2008

**Moulin DE.** Neuropathic Pain. In: Jovey RD (ed): *Managing Pain*. 2<sup>nd</sup> Ed. Toronto, Healthcare and Financial Publishing, 207-219, 2008

**Rollman GB.** Pain: Cognitive and contextual influences. In Goldstein B (ed), *Encyclopedia of Perception*. Thousand Oaks, CA: Sage (in press)(2009)

**Sequeira K**, Sangha H, Gnanakumar V, Pretty J, **Teasell R.** Managing MVC-related sequelae in the primary care setting. Normalizing experience of acute pain and injury-related impairment. In Duckworth MP, Iezzi T, O'Donohue WT (eds). *Motor Vehicle Collisions*. Elsevier, Amsterdam, Netherlands 31-166, 2008

Legros AG, **Thomas AW.** Exposure to 60 Hz magnetic fields – Biophysical effects from Phase 1 to Phase 11, 66 pgs Phase 1 Milestone report for EDF/RTE – Hydro-Quebec, Lawson Health Research Institute 2008

Theberge J, Lanius R, St. Lawrence K, **Prato FS**, Thompson RT, **Thomas AW**, Stodilka RZ. Investigation of the effects of closed head injury using neurophysiological, neuroimaging and neurocognitive assessment – Phase III, Task 1 Final Report, Lawson Health Research Institute, 99 pgs, Funding: Department of National Defence 2008

Robertson JA, McKay JC, **Thomas AW.** Chapter 9: EEG for MTBI Diagnosis, In: Stodilka RZ, Legros A, Pavlosky WF, Gow J. Investigation of the effects of closed head injury using neurophysiologic, neuroimaging and neurocognitive assessment – Phase I, Task 1 Final Report, Lawson Health Research Institute, 53 pgs, Funding: Department of National Defence 2008

McKay JC, Tymi K, **Prato FS**, **Thomas AW**. "Circulatory and microcirculatory effects of 60 Hz and specific pulsed magnetic field exposure". 5<sup>th</sup> International Workshop on Biological Effects of Electromagnetic Fields, Palermo, Italy. Conference Proceedings Sept 29, 2008

**Prato FS**, Desjardins-Holmes D, Keenliside LD, McKay JC, Robertson JA, **Thomas AW**. "Magnetoreception: Can one mechanism account for both bird orientation and rodent nociceptive effects?" 5<sup>th</sup> International Workshop on Biological Effects of Electromagnetic Fields, Palermo, Italy. Conference Proceedings Oct 2, 2008

**Thomas AW**, Robertson J. Neuromodulation by exposure to a pulsed low frequency magnetic field. Proceedings: XXIVth URSI General Assembly, Chicago, IL August 10-16, 2008

Robertson JA, Theberge J, Weller J, Drost D, **Prato FS**, **Thomas AW**. Functional imaging of magnetic field therapy. Proceedings: XXIVth URSI General Assembly, Chicago, IL August 10-16, 2008

### **Abstracts**

**Dhir S**, **Ganapathy S**, Masood A. Local anesthetic dilution for peripheral nerve block: Comparative evaluation of saline vs. 5% dextrose. Can J Anesth 55: 474757, 2008

**Getty H**, Shapiro A, **Morley-Forster P**, **Teasell R**, **Harth M** and Pope J. Unmitigated communion, self-silencing and unpaid domestic workload: Relationships with disability and depression in the context of chronic pain. International Association for the Study of Pain, 12<sup>th</sup> World Congress on Pain Conference Proceedings, Glasgow, Scotland August 2008

Watt-Watson J, McGillion M, Hunter J, Choiniere M, Clark J, Dewar A, Johnston C, Lynch M, **Morley-Forster PK**, **Moulin DE**, Thie N, von Baeyer CL, Webber K. Pre-licensure pain curricula in Health Science Faculties: A survey of Canadian universities. IASP World Congress on Pain Abstracts, Glasgow, Scotland, August 2008

Van Uum SHM, McKeough-Fraser LA, **Morley-Forster PK**, Paul TL, Koren G et al. Oral opioids for chronic non-cancer pain: Higher prevalence of hypogonadism in men than in women. Exptl and Clin Endo and Diabetes 2008 (in press)

Van Uum SHM, Sauve B, McKeough-Fraser LA, **Morley-Forster PK**, Paul TL, Koren G. Elevated content of cortisol in hair of patients with severe chronic pain. A novel biomarker for stress. Stress 2008 (in press)

Watt-Watson J, Hunter J, Choiniere M, **Moulin DE** et al. A survey of pre-licensure pain curricula in health science faculties in Canadian universities. Pain Research and Management 13: 151, 2008

**Moulin DE**, Rykx A, Kerstens R et al. Randomized, double-blind, placebo-controlled trial to evaluate efficacy and safety of prucalopride (Resolor) in patients with opioid-induced constipation. Abstract #438068. Digestive Disease Week 2008

Dion D, Choiniere M, Peng P, Clark J, Intrater HM, Lefort SM, **Moulin DE** et al. The Canadian Stop-Pain Project: Factors associated with severe pain in patients waiting for treatment in large university-affiliated multidisciplinary pain treatment facilities. Abstract #227, IASP World Congress, Glasgow, 2008

Racine M, Dupuis G, Dion D, Peng P, Aline B, Intrater HM, Lynch ME, **Moulin DE** et al. The Canadian Stop-Pain Project: The burden of chronic pain – does gender really matter? Abstract #230, IASP World Congress, Glasgow, 2008

Guerriere DN, Choiniere M, Zagorski B, Dion D, Peng P, Lefort SM, **Moulin DE** et al. The Canadian Stop-Pain Projects: Costs associated with chronic pain in patients waiting for treatment in publicly-funded multidisciplinary pain centres. Abstract #195, IASP World Congress, Glasgow, 2008

Watt-Watson J, McGillion M, Hunter J, Choiniere M, Clark A, Dewar A, Johnston C, Lynch M, **Morley-Forster P, Moulin DE** et al. Pre-licensure pain curricula in health science faculties: A survey of Canadian universities. Abstract

#189, IASP World Congress, Glasgow, 2008

Jensen MP, Turner JA, Romano JM, **Nielson WR**. CPCI: Chronic pain coping inventory. Lutz, Florida: Psychological Assessment Resources, Inc. 2008

Owen DG, Clarke C, **Prato FS, St. Lawrence KS**. Functional neuroimaging of tonic muscular pain. Canadian Pain Society, Victoria, BC, May 27-30, 2008

Owen DG, Clarke C, Velayutham V, **Ganapathy S, Prato FS, St. Lawrence KS**. Using arterial spin labeling to image the changes in cerebral blood flow caused by sustained muscular pain. Int. Society for Magnetic Resonance in Medicine Annual Meeting, Toronto, ON, May 3-9, 2008

**Schulz V**. Malignant wound assessment tool. 17<sup>th</sup> International Congress on Palliative Care. Montreal, Quebec, Sept. 23-28, 2008

Hagen N, **Schulz V**, Kozell K, Stiles C, Martins L, Biondo P, Tonkin K. The Malignant Wound Assessment Tool (MWAT): A validation study (oral presentation). 5<sup>th</sup> Research Forum of the European Association for Palliative Care (EAPC), Trondheim, Norway, May 29-31, 2008

Kozell K, **Schulz V**, Biondo P, Hagen N, Stiles C, Martins L, Tonkin K. "The Malignant Wound Assessment Tool (MWAT): A validation study using the Delph

approach.” Oral presentation at the 19<sup>th</sup> Annual Palliative Care Conference: Education and Research Days, Edmonton, AB, October 27-28, 2008

**Schulz V**, Kozell K, Martins L. Chapter 88: Pressure Ulcers and Wound Care. In: Palliative Medicine. Walsh D, Caraceni A, Fainsinger R, Foley K, Glare P, Goh C, Lloyd-Williams M, Olarte J, Radbruch L (Eds), Saunders, Elsevier Inc., Philadelphia, pp. 478-484, 2008

**Teasell R**, Aubut J, Wolfe D, Hseih H, Townson A for the SCIRE Research Team. A review of treatment of pain following SCI. Archives of Physical Medicine and Rehabilitation 89(10): E42, 2008

**Teasell R**, Aubut J, Wolfe D, Hseih J, Townson A for the SCIRE Research Group. A review of the treatment of pain following SCI. 3<sup>rd</sup> National Spinal Cord Injury Conference, Toronto, ON, November 6-8, 2008 ((podium). Winner of Educational Award

McKay JC, Tymi K, **Prato FS**, **Thomas AW**. Circulatory and microcirculatory effects of 60 Hz and specific pulsed magnetic field exposure. 5<sup>th</sup> International Workshop on Biological Effects of Electromagnetic Fields, Palermo, Italy, Sept 29, 2008

**Prato FS**, Desjardins-Holmes D, Keenliside LD, McKay JC, Robertson JA, **Thomas AW**. Magnetoreception: Can one mechanism account for both bird

orientation and rodent nociceptive effects? 5<sup>th</sup> International Workshop on Biological Effects of Electromagnetic Fields, Palermo, Italy, Oct 2, 2008

Legros A, McNamee D, Beuter A, Brown S, Dubois S, Goulet D, Plante M, Lambrozo J, Plante M, **Prato FS**, **Thomas AW**. Physiological and neuron-behavioural effects of an exposure to a 60 Hz magnetic field at 1800 microtesla. The 6<sup>th</sup> International Commission of Non-Ionizing Radiation Protection Workshop, Rio de Janeiro, Brazil, October 2008

Legros A, McNamee D, Beuter A, Goulet D, Lambrozo J, Plante M, **Prato FS**, **Thomas AW**. Can exposure to a 1800  $\mu$ T magnetic field at 60 Hz modulate human neuro-behaviours? International URSI meeting (International Union of Radio Science), Chicago, IL, August 2008

McKay JC, Tymi K, **Prato FS**, **Thomas AW**. Extremely low frequency magnetic field effects on microcirculation and circulation. URSI, Chicago, IL, August 7, 2008

Legros A, Beuter A, **Prato FS**, **Thomas AW**. Exposition humaine a des champs magnetiques do 50/60 Hz entre 1000 et 3000  $\mu$ T: Approches neurocomportementales. Presented as an invited speaker at the head office of Electricite De France, Paris, France, January 2008

Legros A, Beuter A, **Prato FS**, **Thomas AW**. Exposition humaine a

des champs magnetiques de 50/60 Hz entre 1000 et 3000  $\mu$ T:  
Approches neurocomportementales. Presented as an invited speaker at the "Laboratoire d'integration des materiaux (IMS) CNRS, University of Bordeaux 1, Talence, France, January 2008

**Thomas AW**, Robertson J. Neuromodulation by exposure to a pulsed low frequency magnetic field. Invited talk at the URSI General Assembly, Chicago, IL, August 2008

Robertson J, Theberge J, Weller J, Drost D, **Prato FS**, **Thomas AW**. Functional imaging of magnetic field therapy. Presented at the URSI General Assembly, Chicago, IL, August 2008

Sabondjian E, McKay JC, Stodilka RZ, **Thomas AW**, Keenlside LD, **Prato FS**. Radio-frequency transmissions from cellular telephones do not interfere with nuclear medicine brain imaging equipment. Bioelectromagnetics Society 30<sup>th</sup> Annual Meeting, San Diego, CA, June 13, 2008

Keenlside LD, **Prato FS**, Desjardins-Holmes D, **Thomas AW**, Robertson JA, McKay JC. Light alters nociceptive effects of magnetic field shielding in mice: Intensity and wavelength considerations. Bioelectromagnetics Society 30<sup>th</sup> Annual Meeting, San Diego, CA, June 13, 2008

Legros A, McNamee D, Beuter A, Brown S, Dubois S, Goulet D, Plante M, Lambrozo J, Plante M, **Prato FS**,

**Thomas AW**. Physiological and neuron-behavioural effects of an exposure to a 60 Hz magnetic field at 1800 microtesla. The Bioelectromagnetics Society, San Diego, CA, June 2008

McNamee D, Legros A, **Prato FS**, **Thomas AW**. The acute effects of a whole body exposure to a 1800 microtesla, power line frequency magnetic field on the human cardiovascular system. The Bioelectromagnetics Society, San Diego, CA, June 2008

Albert GC, McNamee JP, Vijayalaxmi, **Prato FS**, **Thomas AW**. Cytogenetic analysis of human lymphocytes after whole body exposure to a sinusoidal 60 Hz 200 microtesla magnetic field. The Bioelectromagnetics Society, San Diego, CA, June 2008

Robertson J, Theberge J, Weller J, Drost D, **Prato FS**, **Thomas AW**. Functional imaging of magnetic field therapy. Presentaton at the 30<sup>th</sup> Annual Meeting of the Bioelectromagnetics Society, San Diego, CA, June 2008

**Thomas AW**, Robertson J. Pulsed electromagnetic fields for the treatment of fibromyalgia. Invited plenary Presentaton given by Thomas AW at the 30<sup>th</sup> Annual Meeting of the Bioelectromagnetics Society, San Diego, CA, June 2008

McKay JC, Tymi K, **Prato FS**, **Thomas AW**. Extremely low frequency magnetic fields: Effects on blood flow and blood pressure.

Bioelectromagnetics Society 30<sup>th</sup>  
Annual Meeting, San Diego, CA,  
June 13, 2008

**Thomas AW**, Robertson J.  
Neuromodulation by exposure to a  
pulsed low frequency magnetic field.  
Annual Meeting of the Canadian  
Pain Society, Victoria, BC, May 2008

Robertson J, Theberge J, Weller J,  
Drost D, **Prato FS, Thomas AW**.  
Functional imaging of magnetic field  
therapy. Hot Topics presentation at  
the Canadian Pain Society Meeting,  
Victoria, BC, May 2008

Robertson J, Theberge J, Weller J,  
Drost D, **Prato FS, Thomas AW**.  
Effect of pulsed magnetic field on  
fMRI processing of pain.  
Presentation at the ISMRM Meeting,  
Toronto, ON, May 2008

Robertson J, Theberge J, Weller J,  
Drost, **Prato FS, Thomas AW**.  
Functional imaging of magnetic field  
therapy. Poster presented at the  
Lawson Research Day, London, ON,  
March 2008

#### **NATIONAL AND INTERNATIONAL PRESENTATIONS AND WORKSHOPS -**

**Dhir S**. Central blocks with  
ultrasound guidance. Department of  
Anesthesia, Jodhpur University,  
India, December 2008

**Dhir S**. Obstetric anesthesia and  
analgesia – recent advances.  
Department of Anesthesia, Manipal  
University, India, February 2008

**Getty H**. Interurban Pain  
Conference: History of abuse as a  
risk factor for the development of  
chronic pain: What does the  
evidence tell us? October 24, 2008

**Merskey H**. Pain disorder, hysteria  
or somatism? Queensland Branch –  
RANZCP Section for Consultation-  
Liaison Psychiatry & Faculty of Pain  
Medicine Queensland Regional  
Committee, Continuing Medical  
Education Meeting, Australia, March  
2008

**Merskey H**. The taxonomy of pain.  
The Brisbane Pain Forum, University  
of Queensland, Brisbane, Australia,  
March 28, 2008

**Merskey H**. Medicolegal aspects of  
pain and insurance based research  
on chronic pain. The Brisbane Pain  
Forum, University of Queensland,  
Brisbane, Australia, March 28, 2008

**Merskey H**. Assessment of pain  
and psychological illness in  
'Catastrophic Impairment'. Chronic  
Pain Section, Ontario Medical  
Association 128<sup>th</sup> Annual General &  
Council Meeting, Toronto, ON, May  
1-4, 2008

**Merskey H**. Pain – a disease of  
brain or mind? Celebration of the  
Work of Amos Korczyn. Department  
of Neurology, Sackler Faculty of  
Medicine, Tel Aviv University, Tel  
Aviv, Israel, November 8, 2008

**Morley-Forster PK**. Topical  
compounds in the treatment of  
chronic pain. CPM Pain Day, June  
2008

**Morley-Forster PK.** The treatment of acute pain in the chronic pain patient. Workshop at Canadian Anesthesiology Society, Halifax NS, June 2008

**Morley-Forster PK.** The role of topical analgesics in the treatment of chronic pain. Interurban Pain Conference, London, ON, October 24, 2008

**Moulin DE.** To Prescribe or not to prescribe long acting opiates in primary care. Drug Therapy Day, University of Western Ontario, London, ON, April 23, 2008

**Moulin DE.** Opioid abuse in the setting of cancer pain. Interurban Pain Conference, London, ON, October 24, 2008

**Nielson WR,** Armstrong JM, Jensen MP and HERNS RD. Two brief versions of the Multidimensional Pain Readiness to Change Questionnaire – Version 2 (MPRCQ2). Paper presented at the 12<sup>th</sup> World Congress on Pain. Glasgow, Scotland, August 2008

**Nielson WR.** Living with Scleroderma: Riding the Emotional Roller-Coaster. Workshop presented at the Meeting of the Canadian Scleroderma Society, Ottawa, ON, September 2008

**Rollman GB.** Organizer and Chairman, Workshop on risk factors for chronic pain disorders: Findings from novel prospective studies. 12<sup>th</sup> World Congress on Pain, Glasgow, August 2008

**Rollman GB,** Hershenfield S and Quansah K. Modulation of temporal summation of pain pulses by concurrent stimulation. 12<sup>th</sup> World Congress on Pain, Glasgow, August 2008

**Rollman GB,** Hershenfield S and Quansah K. Temporal summation and heterotopic suppression of experimentally-induced pain. Psychonomic Society, Chicago, November 2008

Pretty J, **Teasell R,** Death AB, Bhardwaj A, Sequeira K. A systematic review of whiplash injuries. ARGC/FHS Symposium: Bridging Partnerships in Aging and Rehabilitation Research, London, ON, February 8, 2008

**Thomas AW,** Robertson J. Neuromodulation by Exposure to a Pulsed Low Frequency Magnetic Field. Invited talk at the Annual Meeting of the Canadian Pain Society, Victoria, BC, 2008

**Thomas AW,** Robertson J. Neuromodulation by Exposure to a Pulsed Low Frequency Magnetic Field. Invited talk at the URSI General Assembly, Chicago, IL, August 2008

**Thomas AW,** Robertson J. Pulsed Electromagnetic Fields for the Treatment of Pain. Invited plenary presentation given by Thomas AW at the 30<sup>th</sup> Annual Meeting of the Bioelectromagnetics Society, San Diego, CA, June 2008

**- UNDERGRADUATE EDUCATION PROGRAM -**

The pain program continues to be very active in pain education at the undergraduate level. This includes a Year 4 selective on Pain and Its Management which was attended by approximately 100 students. This is a 12-hour multi-disciplinary course provided by neurologists, anesthesiologists, a psychiatrist, a psychologist, a palliative care specialist and a pharmacist. The evaluations for this Year 4 course have consistently been excellent. Small group one hour seminars on management of cancer pain are also provided to all the Clinical Clerks rotating through Oncology. Many medical students attend various pain clinics throughout the city.

**- 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.

There is a pressing need to standardize pain assessment and management training at the Fellowship level and Dr. Pat Morley-Forster has spearheaded an application to the Royal College to recognize Pain Medicine as a subspecialty of Anesthesiology. This has been accepted in principle by the Royal College as Phase I of this application. Phase II is now under way and requires the creation of a curriculum and specification of entry paths. The creation of Pain Medicine as a subspecialty discipline of the Royal College will be a major advance in pain education in Canada.

**- CONTINUING MEDICAL EDUCATION PROGRAM -**

We continue to provide half-day workshops on the assessment and management of neuropathic pain in the fall of each year. The workshop in 2008 was attended by approximately twenty community physicians from a variety of disciplines. The evaluations from this workshop were superb.

Interdisciplinary Pain Rounds and Conferences continue to be very popular at U.W.O. A list of seminar topics and lectures follows on the next page. In October 2008, we staged the Interurban Pain Conference which was attended by approximately 120 participants from many disciplines. The conference involved speakers of national and international stature including Dr. Robert Dworkin from the University of Rochester, New York, who gave the keynote address on neuropathic pain research and management.

**- INTERDISCIPLINARY PAIN ROUNDS AND CONFERENCES 2008 -**

- Jan 30 Using Perfusion MRI to Measure Changes in Regional Cerebral Blood Flow Caused by Pain. **Dr. Keith St. Lawrence**, Department of Medical Biophysics & LHRI, University of Western Ontario, London
- Feb 27 Prognosis in Acute Whiplash – Results of a Meta-Analysis and a Proposed Assessment Framework. **Dr. David Walton**, School of Physical Therapy, University of Western Ontario, London
- Mar 27 Cancelled
- Apr 30 Herpes Zoster and Postherpetic Neuralgia – Challenges of Prevention and Treatment. **Robert Johnson, M.B.**, Consultant Anesthetist and Director, Pain Management Clinic, Bristol, U.K.
- May 21 Fibromyalgia: The PAIN is Real! Now What? **Janice Sumpton, RPh.BSc.Phm.**, Department of Pharmacy, London Health Sciences Centre, London
- Sept 24 History of Abuse and Chronic Pain: What Does the Evidence Tell Us? **Dr. Heather Getty**, St. Joseph's Health Care Comprehensive Pain Clinic, London
- Oct 24 Interurban Pain Conference, London
- Nov 5 Neuropathic Pain Public Forum. **Dr. Dwight Moulin and Dr. David Boyd**, London Health Sciences Centre, London
- Nov 15 Neuropathic Pain Workshop and Conference. **Dr. David Boyd, Dr. Pat Morley-Forster, Dr. Dwight Moulin**, St. Joseph's Health Care, London
- Nov 26 Chronic Pain and Addiction: Issues, Management and the Perspective of C.P.S.O. **Dr. Graeme Cunningham**, Director, Homewood Addiction Division, London