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#### TAB 1. ALLEVIO EXPERTS TEAM MEMBERS BIOS

# MD: Dr. Kevin J. Smith - Anesthesia, Pain Management

- Dr. Smith is our leading Chronic Pain expert and our Medical Director.
- Qualified as an expert witness on Chronic pain in court and has a 10+ year career in the space.
- General Anesthesiology at Rouge Valley Health System, consultant in acute and chronic pain management: particular interest in diagnosis and management of spinal pain.
- Dr. Smith is seasoned, tested, and clear-speaking. Areas of interest: complex chronic pain conditions, neuropathic pain, spinal pain

# Dr. Mark Friedlander - Anesthesia, Pain Management

- Anesthesiologist actively practicing General Anesthesia at North York General Hospital and Pain Management at Allevio.
- Clinical and Research Fellow in Anesthesia and Pain Management
- Qualified as an expert witness, 8+ years experience.
   Areas of interest: chronic pain, neuropathic pain, fibromyalgia

# Dr. Michael Gofeld - Anesthesia, Pain Management

- Staff Anesthesiologist, Department of Anesthesia, St. Michael's Hospital
- Assistant Professor, Anesthesia, University of Toronto
- President and Chairman of Board, American Academy of Pain Medicine Ultrasonography
- Current Headache and Pain Reports (Section Editor) and associate Editor for Pain Practice Regional Anesthesia and Pain Medicine

Areas of interest: complex chronic pain conditions, neuropathic pain, spinal pain



# Dr. Harsha Malempati - Orthopedic Surgery (Spine and General Orthopedics)

- Dr. Malempati collaborates closely with the Allevio Clinical team.
- Appointments at Sunnybrook Health Sciences Centre and MacKenzie Health-Richmond Hill.
- Practice includes orthopaedic trauma, spine trauma, and all adult elective spine pathologies.
- Published author in spine surgery.

Areas of interest: orthopedic injuries, spinal trauma, spinal pain

# Dr. Latham - Orthopedic Surgery (Foot and Ankle)

- Specialist Orthopedic Surgeon; he completed a fellowship in hip and knee surgery in 2007, followed by a fellowship in foot and ankle surgery at Toronto Western Hospital.
- Full-time active staff at the Scarborough Hospital and privileged at Toronto Western Hospital.
- Published author in foot and ankle surgery. Trains fellows from the University of Toronto at Scarborough Hospital.

Areas of interest: foot and ankle injuries

# Dr. Rahul Pathak - Neurology, Interventional Pain Management

- Specialty training in Neurology and Interventional Pain Management.
- Consultant in interventional pain management at Allevio Pain Management Clinic in Toronto

Areas of interest: migraines, chronic pain, neurological / pain complaints

# Dr. Allan Swayze - Psychiatry

- Currently a consultant Psychiatrist at North York General Hospital.
- Assistant Professor of Psychiatry for the University of Toronto since 1977.
- He is an experienced independent medical assessor in both plaintiff and defence work and is trial tested.



Areas of interest: chronic pain, post traumatic stress, depression, anxiety, conversion disorders, CAT

# Dr. Matthew Plant - Plastic Surgeon

- Full time Plastic Surgeon for Orillia Soldiers' Memorial Hospital and a provides emergency coverage at Rouge Valley Health.
- Seminar Leader at the University of Toronto
- Director of Plastic Surgery for the Clearview Institute. Areas of interest: all hand and wrist injuries, scarring, burns, peripheral nerve injuries, bed sores

For more information or referrals, call Alyssa Cooper at (416)840 5990 ex 24 alyssa.cooper@allevioclinic.com



# TAB 2. ALLEVIO EXPERTS FEES FOR SERVICES

# **Independent Assessment Fees:**

Report type	Fee	Loss	Documentation	Pre accident history
Basic Chronic	\$3950.00	MVA < 2	Standard	Unremarkable
Pain assessment		years		
Intermediate	\$4725.00.00	MVA 2+	Moderate	Positive but
Chronic Pain		years		not complex /
assessment				extensive
Complex Chronic	\$5775.00	MVA /	Extensive	Significant /
Pain assessment		CAT		complex
		Personal		
		injury		
		Med/Mal		
Minor Injury	\$950.00			
Guideline				
Report/rebuttal				
Psychiatry and	\$6250.00 +			
Neuropsychology				
assessments				
CAT	7000.00 +			
determination				
Paper review /	\$500 /hr			
Addendum/				
Other				

# Treating Physician reports and Integrated Pain Management

Report type	Fee	Covers	Documentation
Treating	\$500-	Treatment	Our clinical notes and
Physician	\$1000	questions	record
report		·	
Treating	\$500/hr	Diagnosis, Treatment,	CNR's plus any
Physician Medical		Prognosis, Causation,	additional provided
Legal report		Benefits etc.	documentation
MIG report	\$950.00	Minor Injury Guideline	Questionnaire,
-			interview and
			examination
3 week Pain	\$6200.00	Education,	CNR's
Management		psychoeducation,	Outcome measures
Educational		support, self	Reports
Program		management	

# **Allevio Experts Deposit and Cancellation Policy**

1. Unless waived, a deposit of \$2000 is required for all regular assessments and paper reviews



- 2. Deposit is forfeited for cancellation < 5 business days' notice, or when criteria for credit are not met (see #3).
- 3. Deposit is credited to next booking, IF following conditions are met:
  - Appointment cancelled with greater than 5 business days' notice, and
  - · Appointment filled by same firm, and
  - Brief and pain questionnaire are available at least 5 business days in advance.
- 4. Exceptional consideration is given for:
  - Unexpected illness (i.e. too much pain is not an acceptable cancellation)
  - Family or personal emergency
  - At discretion of Allevio Experts

2011 - Present

2004 - Present

1994 - 1995

1990 - 1994



# TAB 3. DR. KEVIN J. SMITH - CV

# Kevin J Smith, MD, FRCPC

101-240 Duncan Mill Road North York, Ontario M3B 3S6

Tel: 416-840-5990 ext. 24

Fax: 647-427-4100

Experts@AllevioClinic.com

**Allevio Pain Management Clinic** 

Department of Anesthesia Active Staff

Chair Medical Advisory Committee, Medical Director

Rouge Valley Health System - Ajax and Pickering & Centenary

# **EMPLOYMENT**

**University of Calgary** Faculty of Management

University of Alberta

Bachelor of Science, Major - Biological Sciences

Department of Ariestnesia, Active Stall	2004 - Present
Ajax Anesthesia Pain Clinic Director, Chronic pain management	2004 - Present
Ontario Shores Mental Health Centre	2004 - Present
Department of Anesthesia, Active Staff	2004 - Present
The Scarborough Hospitals - General Division Department of Anesthesia, Courtesy Staff	2003 - 2011
Advanced Cardiac Life Support Instructor	
Instruct health care providers in the skills of emergency resuscitati	on 2001 - 2004
, , ,	
EDUCATION	
Schulich School of Business	
Physician Leadership Development program	
Physician Leadership Development program, OMA masters certificate	2012 - 2013
OMA masters certificate	2012 - 2013
OMA masters certificate  The Centre for Clinical Leadership	20.2 20.0
OMA masters certificate  The Centre for Clinical Leadership  Anesthesia Leadership Initiative, Peter Minich MD	2012 - 2013 2010
OMA masters certificate  The Centre for Clinical Leadership	20.2 20.0
OMA masters certificate  The Centre for Clinical Leadership  Anesthesia Leadership Initiative, Peter Minich MD	20.2 20.0
OMA masters certificate  The Centre for Clinical Leadership Anesthesia Leadership Initiative, Peter Minich MD University of Toronto	20.2 20.0
OMA masters certificate  The Centre for Clinical Leadership Anesthesia Leadership Initiative, Peter Minich MD  University of Toronto  Physician Leadership Program, Health Policy, Management & Evaluation,	2010
OMA masters certificate  The Centre for Clinical Leadership Anesthesia Leadership Initiative, Peter Minich MD  University of Toronto  Physician Leadership Program, Health Policy,	2010
OMA masters certificate  The Centre for Clinical Leadership Anesthesia Leadership Initiative, Peter Minich MD  University of Toronto Physician Leadership Program, Health Policy, Management & Evaluation,  McMaster University Department of Anesthesia, Residency Program	2010
OMA masters certificate  The Centre for Clinical Leadership Anesthesia Leadership Initiative, Peter Minich MD  University of Toronto Physician Leadership Program, Health Policy, Management & Evaluation,  McMaster University	2010



# Western Canada High School

Advanced High School Diploma, International Baccalaureate Program

1987 - 1990

# PROFESSIONAL AFFILIATION

McMaster University, Department of Anesthesia Assistant Clinical Professor - Adjunct	2011 - Present
College of Physicians and Surgeons of Ontario OHPIP Facility Assessor	2012 - 2013
Promed Evaluations Independent Medical Evaluations, Chronic Pain	2010 - 2013
Access Rehab	
Independent Medical Evaluations, Chronic Pain	2010 - 2013
Allied Med Trauma Evaluations	
Independent Medical Evaluations, Chronic Pain	2006 - 2011
Regain Health Pain Management Program	
Clinical Director	2006 - 2010
The Shapero Markham Headache and Pain Treatment Centre	
Chronic pain consultant; diagnostic interventional pain management	nt 2008 - 2009
The Rehab Centre, Dr. A. Kachooie	
Chronic pain consultant	2004
The Scarborough Hospital	
Independent chronic pain practice	2003 - 2004

# **COMMITTEES/INVOLVEMENT**

•	Physician Payment Review Board, Vice Chair	2014 - Present
•	Negotiations Committee, OMA	2013 - Present
•	Physician Services Committee, OMA-MOHLTC	2013 - Present
•	Chronic Pain Working Group, C-Chair, OMA-MOHLTC	2013 - Present
•	Physician Payment Review Board, OMA Member	2012 - Present
•	Education and Prevention Committee, Co-Chair,	
	OMA-MOHLTC	2011 - Present
•	OMA Section on Anesthesiology, Executive member	2009 - Present
•	Surgical Program Clinical Quality Committee, RVHS	2009 - Present
•	Negotiations Team 2012, OMA, Interviewee	2012 - 2008
•	Flow Improvement Team, Ajax Hospital	2009 - 2006
•	OMA Section on Anesthesiology, Tariff Chair	2009 - 2005
•	Department of Anesthesia, Treasurer, Ajax Hospital	2009 - 2008
•	Physician Services and Payment Committee, OMA-MOHLTC	2003 - 2004
•	Director, Acute Pain Service, Scarborough General	



#### **MEMBERSHIP**

- American Society of Regional Anesthesia and Pain Medicine
- Canadian Anesthesiologists' Society
- College of Physicians and Surgeons of Ontario
- Ontario Medical Association
- Royal College of Physicians and Surgeons of Canada

## **ACADEMIC OPPORTUNITIES**

ACLS, Sunnybrook HSC
 April 2011 September

Centre for Clinical Leadership, Peter Minich 2010 October/November

HPME, University of Toronto
 2008 August 2006 June

Training on Radiofrequency Procedures, Sunnybrook 2006 October 2004

Dr. Gil Faclier, Sunnybrook,

Invasive Chronic Pain Procedures December 2004 2001

Peripheral parks blocks Terrents Western Hespital 2011 1009 April 1009

Peripheral nerve blocks, Toronto Western Hospital 2011, 1998 April 1999

• Botox for pain management, Dr. Ian Finkelstein

- ACLS Instructor's Course
- ACLS
- ATLS

# REFERENCES AVAILABLE UPON REQUEST



#### TAB 4. DR. KEVIN J SMITH - SAMPLE REPORT



Anesthesiology & Chronic Pain Management

240 Duncan Mill Road Suite 101
Toronto. Ontario M3B 3R6

Telephone: (416) 840-5990 Fax: (647) 427-4100

#### INDEPENDENT CHRONIC PAIN ASSESSMENT

FOR:

Mr. XXX

RE:

First Last name
Date of Birth:
Date of Accident:
Date of Assessment:
Date of Report:

#### ASSESSOR:

Dr. Kevin J. Smith, M.D., F.R.C.P. (C) Anesthesiology & Chronic Pain Management

# INDEPENDENT CHRONIC PAIN ASSESSMENT:

Dear Mr. XX

#### PREAMBLE:

This is to certify that I, Dr. Kevin Smith, am a licensed medical practitioner in the Province of Ontario. I am a specialist in Anesthesiology by virtue of a fellowship with the Royal College of Physicians and Surgeons of Canada. I obtained my medical degree at the University of Calgary in 1998 and completed specialty training in Anesthesiology at McMaster University in 2003. In addition to my practice in General Anesthesiology at Rouge Valley Health System, I am a consultant in acute and chronic pain management and have particular interest in the diagnosis and management of spinal pain. I am the Medical Director and a



staff consultant of the Allevio Pain Management Clinic, as well as the Ajax Pain Clinic (at Rouge Valley Health), providing the assessment and management of chronic pain conditions. I dedicate 60-80% of my practice towards clinical care and 20-40% towards administrative and political responsibilities and medico-legal assessment

This third party assessment was performed at the office of Allevio Pain Management, 942 - 275 Slater Street, Ottawa, Ontario, K1P 5H9.

The client understands the nature and purpose of this independent medical evaluation. The assessor/client relationship was explained and was fully understood. Verbal consent for release of this report was obtained. The client's identity was confirmed with her driver's license.

The history outlined below was related to me during this assessment. The documentation forwarded to me was also reviewed and is listed in the appendix, with a description of specifically relevant items summarized below under "Summary of Relevant Documentation."

It should be noted that this report is based upon the presumed truthfulness of the client. If there have been distortions or inaccuracies in the client's reporting, diagnostic impressions and conclusions could be altered.

The client has been advised that upon request a copy of this report can be forwarded by the client's lawyer to the primary family physician to consider any medical recommendations made during this assessment.

Please note that the term **possible** in this report is referring to an anticipated outcome or result of less than 50% and the term **probable** is referring to an anticipated outcome or result of greater than 50%.

A signed Form 53 (Acknowledgment of Expert's Duty) and full CV are attached.

#### INSTRUCTIONS PROVIDED:

I have been instructed to review the documentation forwarded to me, assess this client, and provide a detailed chronic pain report summarizing my findings and opinion.

#### NATURE OF OPINION SOUGHT:

I have been asked to perform this assessment specifically to address the issues of diagnosis, prognosis, whether the client is employable, whether the client requires assistance with housekeeping activities and treatment recommendations as they relate to the motor vehicle accident on the indicated date of loss.

#### **DOCUMENTATION PROVIDED:**

See appendix

#### **DOCUMENTATION REVIEWED:**

Affidavit of Documents 1:

- CNR's Dr. (GP)
  - Regular visits between 2008 and 2011 pre-accident mostly related to HTN, peri- menopausal symptoms
  - October 4, 2010 back pain, note "LBP 7 months ago"



- January 3, 2011 MVA, driver struck by a truck passenger side, neck and back pain most of the night.
- January 4, 2011 X-ray mild spondylosis C5-6, mild degenerative changes and spondylosis L3-4 and L4-5, with mild facet degenerative L4-5 and L5-S1.
- July 13, 2011 physiotherapy and massage ongoing, left forearm pain, neck pain,
- September 13, 2011- feels down since MVA, can't complete previous activities, referral for psychology/CBT
- December 13, 2011 note indicating that she fell down at home, bruised right forearm and lower back. No more improvement with physio.
- 2. December 21, 2011 Psychology assessment Dr.
  - Complaints of neck pain, left arm pain, low back pain, left leg, headaches, poor sleep.
  - Adjustment disorder, rule out depressive disorder and generalized anxiety disorder
  - Psychotherapy recommended, Treatment plan for 10 sessions
  - Tests results felt to be valid
- 3. CNR's Physiotherapy Clinic
  - January 19, 2011 intake lower back pain, wrist pain, neck pain, upper back pain
  - February 2, 2011 assessment report lower back pain, left wrist hand pain, neck pain. Plan - neck and back exercise program, cardio program, education, modalities.
- 4. Updated CNR's Dr.
  - February 14, 2011 MRI lumbar spine minimal disc bulges at L4-5 and I 3-4
  - January 24, 2012 EMG limited as she refused the nerve conduction, FMG normal
- CNR's Dr. Psychologist copy of report and treatment plans and handwritten progress notes
- 6. April 10, 2012 IE Multidisciplinary of Dr. XX (re IRB)
  - Complaints were recorded as: lower back, neck pain, numbness in left hand, headaches. FAE results were felt to represent inconsistent effort.
  - Psychology results indicate Pain Disorder, adjustment disorder, vehicle related anxiety. Psychologist felt that she would have difficulty with employment, caregiving and housekeeping as a result of her pain and fatigue but no substantial inability to perform employment.
  - Opinion was that she does not suffer a substantial inability to perform pre accident employment.
- 7. May 22, 2012 IE Physiatry of Dr. XX



 Dr. XX is of the opinion that she remains with a substantial inability with carrying out her job. She is encouraged to use pacing and continue to attempt pre accident

#### Second Supplementary Affidavit of documents:

- April 4, 2013 Psychology progress report Dr. Psychologist despite treatment her depression and anxiety continues to be in the severe range - 16 additional sessions recommended.
- 2. May 30, 2013 IE OT IHA (OCF-18 for assistive devices)
  - Assistive device is not felt to be reasonable, as it does not address neck position, a bookstand is recommended. In addition, a pain management program is recommended.

#### Third Supplementary:

- October 3, 3013 Progress report Physiotherapy (Tab 5) report indicates that there has been no significant improvement with treatment. An MRI to further investigate symptoms is recommended.
- 2. Updated CNR's Dr. XX
  - August 13, 2012 General rehabilitation clinic consult report Dr. XX -Clinical impression of myofascial pain with active trigger points in the trapezius muscles, ongoing muscular low back pain, WAD II. Chronic pain. Pain management strategies discussed including medication, swimming, physiotherapy and education.
  - August 21, 2013 right big toe x-ray O A changes

#### Fourth Supplementary:

- CNR's Dr. XX Sports Medicine January 20, 2014 Ongoing reports of: chronic neck and shoulder pain, low back pain radiating left leg. MRI right ankle, may benefit from cortisone injections in peroneal and post tibial area.
- 2. january 31, 2014 EMG re left CTS normal

### Fifth Supplementary

- Updated CNR's Dr. XX
  - February 21, 2014 MRI right ankle Achilles tendinopathy. Synovitis within the retrocalcaneal bursa
  - April 2, 2014 right ankle pain worse than left, swelling
- 2. File from The Gym Club gym membership and visits dates
- 3. Updated CNR's The Hospital
  - March 27, 2009 ER record presenting with atypical chest pain
  - June 14, 2009 ER record presenting complaint of upper extremity pain, left hand swelling and pain, ?carpal tunnel
  - January 7, 2011 X-rays left forearm, left hand and left wrist
  - January 17, 2011 ER record MVC 2 weeks ago, right forearm injury, xrays no fracture
  - January 17, 2011 X-ray left forearm and wrist no fracture or dislocation



- February 14, 2011 MRI lumbar spine minimal disc bulges at L4-5 and I 3-4
- May 8, 2013 EMG re numbness in left hand normal
- 4. November 26, 2014 OT report
  - Ongoing: right lower leg pain and lower back pain
  - Recommendation to continue biweekly OT, assistive device personal training, psychology, chiropody
- 5. CNR's Independent Case Management Services
- 6. Updated CNR's Dr. XX
  - June 11, 2014 MRI right ankle retrocalcaneal lobulated bursal fluid with surrounding soft tissue edema and internal synovitis as well as suspected small erosion anterior to the calcaneal insertion of the Achilles tendon
- 7. CNR's Psychological Services
- 8. Updated CNR's Dr. XX
  - September 11, 2014 MRI cervical spine small disc protrusion at C4-5, C5-6 and C6-7
- 9. January 8, 2015 IME Dr. XX
  - Documents and treatment summary reviewed in detail
  - Dr. XX's opinion questions role of MVA with forearm pain and hand numbness, documents indicate it was not immediate
  - He opinions that knee pain is not accident related as well as left ankle and foot pain
  - Conclusion that Chronic pain syndrome triggered by MVA interfering with all aspects of life

#### Additional documentation:

- 1. CNR Dr. XX
  - 2014-2015 Multiple entries re: right ankle synovitis
  - Feb 11, 2015 Synovitis R ankle, possible medial meniscal tear L knee
  - Mar 30, 2015 Low back pain, radiation L leg, L ankle, L knee, L ankle tender central plantar fascia
  - April 29, 2015 pain L ankle, getting worse on R side; Cervical whiplash, plantar fasciitis, Achilles tendinitis; bone scan relatively normal
  - Bone scan April 1, 2015 minimal increased uptake lower left SI joint, probably represents degenerative bony change, slight increased uptake left knee possible enthesopathy, abnormal moderate increased uptake plantar left calcaneus suggestive of plantar fasciitis, minimal increased uptake posterosuperior right calcaneus suggestive of minimal enthesopathy at achilles tendon insertion
  - MRI Left Knee March 26, 2015 mild chronic MCL sprain, medial and patellofemoral compartment chondropathy, mild strain proximal medial



- gastrocnemius, lobulated fluid signal likely related to small ganglion or previous capsular injury
- MRI Right Ankle June 11, 2014 retrocalcaneal lobulated bursal fluid with soft tissue edema and internal synovitis, suspected small erosion Achilles tendon
- 2. May 14, 2015 OT Update Report severe increase in pain since last visit, pain and swelling left ankle and knee pain, excruciating pain sole of her left foot prevented from walking safely in her home; cane ordered immediately; recommended OT every 1-2 weeks in home; attending Dr. for psychological and reports benefit; participating in personal training- Dr. put on hold and recommended physiotherapy for increase in pain.
- 3. Hospital CNR 2008 to present
  - Mental Health Department notes
  - December 1, 2014 consultation diagnosis major depressive episode with anxious features secondary to some significant changes in her life over past 3 years, rule out generalized anxiety disorder.

## HISTORY OF PRESENT INJURY AND TREATMENT COURSE:

This client is a XX year-old right-handed woman who was involved in a motor vehicle accident on. She was the seatbelted driver of a Toyota with her two daughters that was struck on the passenger side by a truck in a T-bone fashion. The airbags did not deploy. The car was eventually repaired for several thousand dollars.

The client did not lose consciousness. Immediate symptoms and obvious injuries sustained include dizziness. After paramedics arrived she was found to have elevated blood pressure. Her daughters were quite upset so she preferred to return home to attend to their needs. By that evening she developed neck and back pain with some discomfort in her left arm, so she attended her Family Doctor, Dr. XX, the following day. She was sent for x-rays and referred for physiotherapy, which she initiated about one week later. She explained that the x-ray reported a small fracture on the left wrist. later re-assessed and told there was no fracture.

Since then, the client attended therapy for more than two years overall, with only short-lived benefit.

Dr. XX has managed her medications, including initiation of anti-depressants approximately three years ago. She has struggled with side effects from various medications, but reports that the anti-depressants helped somewhat.

She consulted with several physicians over the subsequent years, including Dr. XX for right ankle pain that developed approximately 1/ years ago. An MRI reported some synovitis, and she subsequently had a cortisone injection that exacerbated the pain. She recently attended a bone scan, but she is unaware of the results.

She then consulted with Dr. XX for the ankle and was informed that nothing could be done, apparently sent for tests for the liver.



She has had personal training at her home twice weekly for the past two years, with some subtle benefit, recently exacerbating her back pain and recently advised to cease training until another MRI is completed to rule out a possible compressed nerve.

She is pending approval for additional physiotherapy based on Dr. XX's recommendation

She started seeing Dr. XX for psychotherapy several years ago, reporting some benefit with visits approximately every 2 weeks or as needed. Within the past year she also started seeing a Psychiatrist, Dr., attending approximately every 1-2 weeks for medical management and counseling, with some benefit.

She is currently on the wait list for the Chronic Pain Program at The Ottawa Hospital.

#### Investigations:

- January 4, 2011 X-ray mild spondylosis C5-6, mild degen changes and spondylosis L3-4 and L4-5, with mild facet degen L4-5 and L5-S1.
- January 7, 2011 X-rays left forearm, left hand and left wrist
- January 17, 2011 X-ray left forearm and wrist no fracture or dislocation
- January 17, 2011 ER record MVC 2 weeks ago, forearm injury, x-rays no fracture
- February 14, 2011 MRI lumbar spine minimal disc bulges at L4-5 and L3-4June 11, 2014
- June 11, 2014 MRI right ankle- retrocalcaneal lobulated bursal fluid with soft tissue edema and internal synovitis, suspected small erosion Achilles tendon
- September 11, 2014 MRI cervical spine small disc protrusion at C4-5, C5-6 and C6-7
- Bone scan April 1, 2015 minimal increased uptake lower left SI joint, probably represents degenerative bony change, slight increased uptake left knee possible enthesopathy, abnormal moderate increased uptake plantar left calcaneus suggestive of plantar fasciitis, minimal increased uptake posterosuperior right calcaneus suggestive of minimal enthesopathy at achilles tendon insertion
- MRI Left Knee March 26, 2015 mild chronic MCL sprain, medial and patellofemoral compartment chondropathy, mild strain proximal medial gastrocnemius, lobulated fluid signal likely related to small ganglion or previous capsular injury

The client reports that her overall condition has declined since the accident with newer pain sites developing over time. She indicated that the left knee pain developed perhaps one year after the accident, and the right ankle pain perhaps 1 '/2 years ago, explaining that because of her back pain and left leg radiation she was limping and that may have resulted in the knee and ankle pains. She reports that she has not had anything helpful for the pain per se, even though the depression is somewhat better on treatment.



#### PREVIOUS ACCIDENT AND PAST MEDICAL HISTORY:

The client reports being involved in no previous motor vehicle accidents and no major injuries. There is an otherwise unremarkable pre-accident medical history, notably without a reported history of chronic pain, depression or anxiety. She has pre-accident hypertension treated with medication and one episode of chest pain and hand pain that occurred in 2009. She explained that she was under a great deal of stress at that time due to concern over her family's safety in Lebanon and reported that she was likely depressed at the time; she did not require treatment and improved spontaneously, with no documented complaints of depression in Dr. XX's pre-accident notes. She also explained that prior to presenting to ER for the left arm pain she had been cleaning her son's room and pushed on his bed and strained the arm, resolving after a couple of days with Tylenol. She denied pre-accident back, neck or arm pain in the year prior to the accident, and she denies any pre-accident restrictions of any kind. She does not smoke and drinks alcohol seldom. Past surgeries include a C-section for her 6th child.

Reported medications include recent Xenical to lose weight, Zopiclone, Naproxen 500 mg OD, Buproprion, Robaxacet or Tylenol ES 6-8 per day, Coversyl and Voltaren gel 1-2 times per day. Previously attempted medications for pain control include Lyrica, discontinued due to stomach upset. Allergies are reported to no medications.

#### SOCIAL HISTORY:

The client was born in Iran and immigrated to Canada in 1991. She was educated to grade 12 and received 1/2 year of post-secondary education in Law, discontinued when she fled due to war. She lives with her husband of 30 years in their own home. Their relationship is significantly strained since the date of loss due to loss of intimacy due to pain. They have six children, with five living at home. The parental relationship is strained due to feeling short and impatient with them and less interested in participating in activities with them.

Socially, the client was previously active with family and friends. She enjoyed visiting friends often, working and cooking at the family restaurant, walking and participating in religious theatre in their community. Although not regular, she went to the gym on occasion to exercise, but she was very physically active at the gym in approximately 2008. Much of her time was spent managing their large family. Since the date of loss, the social activities have decreased significantly. This is due to persistent pain, loss of interest and feeling like being alone. She spends most of her day at home, feeling anxious and nervous with most activities and "screaming too much," reporting that that was never her personality prior to the accident.

# FUNCTIONAL ENQUIRY:

The client's weight has increased since the date of loss by 18-20 kilograms. The client's sleeping habits have worsened since the date of loss. She previously slept 7 restful hours per night, not requiring a sleep aid, but now sleeps 4-5 hours per night, waking 1-2 times due to pain. The client does not feel rested in the morning



and spends 1-2 hours during the day resting due to pain. Concentration and memory have been somewhat worse. She does not have nightmares about the accident. She does not still feels scared to drive. The client's mood is described as sad, nervous, fatigued, irritable, angry, frustrated, unable to cope and wanting to be alone, somewhat improved on medication but still symptomatic. She has undergone extensive psychological counseling with Dr. XX, with some reported benefit, and has been attending a Psychiatrist as well.

# **ACTIVITIES OF DAILY LIVING:**

The client reports usually being independent with self-care, including dressing, bathing and showering, but occasionally has difficult changing her clothes or removing her shirt during flare- ups.

With respect to homemaking duties, she was fully independent prior to the accident without restrictions. She was the primary caregiver of the family and household, "taking care of everything." Since the accident she has had to rely on her children and husband much more, reporting that two of her children take some time off work in order to help her. She has been provided some assistive devices through her Occupational Therapist, which help her manage chores. She has been getting OT help for approximately 3 years, finding it helpful. She is now capable of managing some dusting, vacuuming, dishes, folding laundry and light cooking. She finds it difficult to stand for long such that she cannot prepare full meals as she had before the accident. She requires frequent breaks in order to pace herself. She requires help with cleaning the bathroom, mopping, lifting laundry, making beds and all outdoor chores such as shoveling, lawn care and gardening.

With respect to care-giving duties, her children are independent, between ages 23 and 11. She reported having the greatest difficulty with her youngest daughter as she was still young at the time of the accident (and present in the vehicle) and the client was unable to maintain the same relationship with her personally or physically, such as being unable to lift or carry her any longer.

#### OCCUPATIONAL HISTORY/STATUS:

At the time of the accident, the client was working as an owner operator of the family restaurant, working 35 hours per week. They had run the business for more than 14 years. Demands of the employment included managing and assisting with cooking or shopping. Following the accident, the client has been unable to resume this work. She attempted to return to the restaurant on a few occasions to check on things, but she has felt too much pain, anxiety or loss of interest to stay or

help in any meaningful way. Due to financial strain and difficulty finding and affording chefs, they were forced to close the business approximately one year ago.

The client is currently not working. The client reports that she is focusing on trying to get healthier and feel better, hoping to return to work some day. As she feels unable to manage most chores at home without frequent breaks to pace herself, she feels incapable of returning to work.



# CURRENT STATUS INCLUDING SYMPTOMS IN ORDER OF SEVERITY:

The American Medical Association (AMA) guides to the evaluation of permanent impairment recommends that assessments for disability due to pain include reproducible methodologies to evaluate the severity of pain, activity restrictions, emotional distress and pain behaviours. Due to the complex interaction of physiological, psychological and social factors associated with musculoskeletal and, specifically, spinal disorders, it is difficult to evaluate these disorders through traditional biomedical techniques. As a consequence of this complexity, and because pain and disability are the most significant issues for injured patients, the evaluation of functional status is essential in the treatment of chronic disabling musculoskeletal disorders [Anagnostis et al]. Patient self-report is one means being increasingly relied upon to evaluate functional status. To incorporate these factors into this assessment, the client completed the following questionnaires:

#### a. Pain Disability Questionnaire (PDQ)

The PDQ [Anagnostis et al] is a simple and quick methodology for measuring the degree of impact that pain has on a person's ability to perform essential life activities, including housework, personal care, basic physical activities and social and recreational activities. The level of disability increases as the total point score out of 150 increases. The score can be divided into a physical component (out of 90 points) and a psychological component (out of 60 points).

The client scored the following:
Physical score
60/90 (Items 1-7, 12-13; Score >22/90 is above normal range)
Psychosocial score
50/60 (Items 8-11, 14-15; Score >15/60 is above normal range)
Total score
110/150 (Score > 37/150 is above normal range)

This result suggests a finding consistent with Chronic Disabling Musculoskeletal Disorder (CDMD). Scores consistent with the CDMD group (range 72-120) are associated with a severe level of pain-related disability that has not responded to primary and secondary levels of treatment.

#### b. Pain Scores

The client reports overall pain levels ranging from 4/10 at its best to 9/10 at its worst, with an average pain score of 7/10.

Reported pain scores of 6-7 are considered moderately severe, 8-9 are considered severe and 10 is considered extremely severe or equivalent to the worst pain ever experienced by the individual. Most people report being able to generally cope with pain intensities up to 5-6, at which point function, quality of life and capacity to cope begin to deteriorate when the average pain is in this range or higher.

The following details the pain sites, in order of severity from worst to least.



#### Low back pain

Described as intermittent but nearly daily lower left-sided back pain characterized as sharp, shooting and burning, radiating from the left low back to the left anterior thigh and knee. There is seldom numbness in the left foot. The pain is aggravated by prolonged sitting beyond 1-2 hours (requiring change in position), standing from a seated position, lifting, bending, walking more than 15-20 minutes, standing more than 15-25 minutes (initially only a few moments after the accident), climbing stairs and stress. The pain is alleviated by medication, rest and sleep. There is no associated bowel or bladder incontinence.

#### Neck pain

Described as intermittent but nearly daily posterior neck pain characterized as hot/burning, notably with bending or leaning forward with the neck, such as while reading. The pain used to radiate from the neck to the right side of the head with numbness, since resolved and moving to the left side of the head, since resolving approximately 6 months ago. There was some left arm heaviness and pain that resolved approximately one year ago, with intermittent numbness and tingling of the fingers diffusely. The pain is aggravated by looking up, looking down, turning the head, reading and stress. The pain is alleviated by medication, sleep and rest.

#### Right ankle pain, recently left ankle pain

Described as sharp and burning, developing perhaps 1 1/2 years ago and diagnosed with synovitis. She then developed some left sided ankle and foot pain, burning on the bottom of the left foot. She is pending a new MRI to rule out nerve compression and has had a bone scan recently to look for sites of inflammation.

#### Left knee pain

Described as intermittent left-sided knee pain characterized as sharp, with bending in particular.

## c. Neuropathic Pain Questionnaires DN4:

The DN4 questionnaire scored 5/10 based on one point for each of the following items related to neck and left arm pain:  $\boxtimes$  burning,  $\square$  painful cold,  $\square$  electric shocks,  $\boxtimes$  tingling,  $\square$  pins and needles,  $\square$  numbness,  $\square$  itching,  $\boxtimes$  hypoesthesia to touch,  $\boxtimes$  hypoesthesia to prick,  $\square$  brushing allodynia. A score of at least 5/10 is generally consistent with neuropathic pain.

# PHYSICAL EXAMINATION:

The client appeared well-groomed with a slightly limping and unsupported gait upon entering the examination room. Reported height was 165 centimetres and weight 80 kilograms. She appeared comfortable while sitting, but shifted approximately every 20-30 minutes, and moved to the examination table with



visible discomfort, reporting that the back was very sore. Once standing, she stood for a few moments and stepped carefully, reporting that the pain is always worse until she makes a few steps. The affect appeared somewhat flat. She was extremely well- spoken, cooperative and forthcoming.

Examination of the head and neck revealed a very stiff posture, somewhat forward flexed. The temporalis, frontalis, masseter and occipitalis muscles were nontender. The occipital groove was nontender at the region of the greater and lesser occipital nerve bilaterally. There was tenderness to the trapezius and paracervical muscles on the left primarily (mild on the right), with some hypertonicity of the left trapezius muscle. Parathoracic muscles were tender on the left. Periscapular muscles were tender on the left. Range of motion of the cervical spine demonstrated flexion (chin to chest wall 5-6 cm), extension to 0-5 degrees, leftwards rotation to 45 degrees, rightwards rotation to 20-30 degrees, left lateral flexion to 15-20 degrees and right lateral flexion to 15-20 degrees. Spurling's maneuver was positive for left neck and trapezius/periscapular pain, not down the left arm. She complained of increasingly numb fingers of the left hand through the examination.

Examination of the upper extremities revealed slightly reduced light touch and normal grip/motor testing to the left arm, with reduced pin-prick diffusely through the left arm from deltoid to fingers compared to normal findings on the right. Biceps reflex was 1+, reduced, on the left, and 2+ on the right. Triceps reflex was 2+, normal, bilaterally. Range of motion of the shoulders was reduced for abduction to 120 degrees actively, 150 degrees passively and restricted mostly on the left due to increasing neck and shoulder pain, and external rotation to 75 degrees on the right and 60-75 degrees on the left. The appearance of the arms was normal, specifically no muscle wasting, swelling or discolouration.

Examination of the back revealed normal alignment and tender paralumbar musculature on the left. Flexion was fingertips to mid thigh, extension was to 0-5 degrees and lateral flexion was to 10-15 degrees bilaterally. Pain was reported with lateral flexion, extension and flexion, worst with extension or trying to bend beyond the thigh. The peri-sacroiliac soft tissue was very tender on the left. Provocative testing of the sacroiliac joints using the FABER maneuver revealed positive findings to the left joint for sacroiliac pain, and contralateral left severe back pain on testing the right joint. The lateral hips were nontender at the trochanters

Lower extremity neurological examination was normal to light touch, pin prick and motor testing. Knee jerk testing was 2+, normal. Ankle jerk reflex was 2+, normal. Leg raise testing was normal bilaterally, limited by back pain only, associated with negative ankle dorsiflexion sign. The appearance of the legs was normal, specifically no muscle wasting, swelling or discolouration.

The left knee was tender medial to the patella with seemingly unrestricted flexion and extension. The left ankle was tender postero-laterally with seemingly unrestricted range. There was tenderness along the lateral and plantar surface of the calcaneus and the plantar fascia.

This client demonstrated the following observable pain behaviours:

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- Facial grimacing with examination
- Holding or supporting the back after examination
- Limping gait
- Frequent shifting of posture or position
- Extremely slow movements and caution putting weight on the left leg after prolonged sitting

In consideration with the general assessment for this client, these pain behaviours are consistent with the diagnoses summarized below.

#### **DIAGNOSIS AND DISCUSSION:**

As my opinion is based solely upon information provided in the supplied documentation, the client's personal report and today's assessment, I reserve the right to revisit my opinion if further information should become available.

On the basis of the history, physical examination and review of the Medical Brief, this client has the following diagnoses:

- Chronic pain syndrome (with mixed musculoskeletal and neuropathic features) associated with:
  - Sleep disruption
  - Psychological/emotional disturbance
- Chronic musculoskeletal neck pain due to:
  - Mechanical, possible facetogenic, pain
  - Myofascial pain
  - o Possible discogenic or radicular pain
  - Possible left shoulder injury not yet defined
- Chronic musculoskeletal low back pain due to:
  - o Left sacroiliac joint pain
  - Mechanical, possible facetogenic, pain
  - Myofascial pain
- Neuropathic pain left arm
- Chronic left knee pain, not yet fully defined
- Chronic ankle pain, not yet fully defined
  - Probable left plantar fasciitis
  - Right ankle synovitis with Achilles tendinopathy

The musculoskeletal spinal injuries may involve tearing and disruption of the soft tissues and there is often damage to the discs or facet joints. This type of pathology has been shown in humans and in animal studies. Although reported incidences vary, there is a high incidence of progression from acute whiplash injury to chronic pain. A series of reviews in 2011 concluded that approximately 50% of whiplash patients progress to chronic pain, and 10-20% will develop

moderate to severe pain syndromes. This is probably due to a variety of factors, including facet joint injury, central sensitization (see below), stress response and psychosocial and sociocultural factors. [Jull et al]

There are also features of neuropathic pain characterized by the abnormal neurological findings in the left arm and reported burning pain with numbness and



tingling. This will make future care more difficult as this client has both neuropathic pain as well as musculoskeletal pain to treat.

In addition, this client has gone on to develop the features of a chronic pain syndrome. Although definitions vary, a chronic pain syndrome is generally said to exist where the pain has been present for more than 3-6 months (or beyond the expected healing time), is intrusive in nature, is usually associated with sleep disruption and mood changes, and interferes with most of the patient's activities (usually reflected as a 50% or more reduction in global function).

A chronic pain syndrome starts off with acute pain. As a result of the acute pain impulses, there are secondary changes in the spinal cord and brain that is known as central sensitization. As a result of this, pain becomes more diffuse and typically no longer follows a dermatomal pattern. There is secondary disuse in the musculoskeletal system. There are often associated psychological and emotional difficulties and a characteristic sleep disturbance.

A chronic pain syndrome often causes long-term disability. Adapted from a 2005 report of the American College of Occupational & Environmental Medicine, the Treasury Board of Canada Secretariat reports the probability that employees will return to any form of employment following an absence from work for illness or injury decreases from 50% at 3 months, to 20% after 6 months and 2% or less after 12 months. This is consistent with patients suffering from chronic pain syndrome.

In my opinion this client meets all the features of a chronic pain syndrome, complicated by a co-existing mood disorder.

The client reported a depressed mood since the date of loss and has reported a significant amount of social and emotional upset as a result of this motor vehicle accident. She has been diagnosed and treated for depression and anxiety, both medically and psychotherapeutically. This will have a deleterious effect on social, marital, professional and recreational activities as well as aggravate the severity of chronic pain. In fact, co-existing clinical depression/anxiety is known to adversely affect the quality of chronic pain, the ability to cope with chronic pain as well as the efficacy of treatment. Furthermore, without adequate treatment for depression/anxiety, chronic pain will be permanent despite other treatments discussed. Ongoing psychological and psychiatric treatment is recommended, preferably in association with a multidisciplinary pain management program as summarized below.

As a result of the chronic pain, this client has developed a sleep disruption resulting in a non-restorative and broken sleep pattern. Sleep disorders are known to worsen the degree of chronic pain as well as treatment efficacy in patients with chronic pain.

#### PROGNOSIS:

Based on the chronicity and severity of the signs and symptoms, the prognosis for recovery to pre-accident levels of function from these diagnoses is poor.

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In addition, this client will have permanent chronic pain and associated functional impairments. The chronic pain syndrome involves a combination of both physical injuries as well as a strong psychosocial component in terms of the ability to cope with the development of these injuries and with life with chronic pain. Engaging in high impact physical and recreational activity will be difficult and will aggravate the pain. Social and familial relationships tend to progressively worsen over the years. This is consistent with the client's reported and documented post¬accident condition.

Q: Are you able to state that "it is more probable than not" that a future event will occur?

Yes, it is probable that a future event will occur, meaning that the client will probably experience either continuous pain or flare-ups in pain due to the accident-related diagnoses.

# CAUSALITY:

With some discussion below, these diagnoses are causally related to the motor vehicle accident on the date of loss.

The painful symptoms reported were not present prior to the accident and all developed at the time or soon after the accident, including the left arm pain (x-ray January 7, 2011 to rule out fracture). The injuries are consistent with the mechanism of injury. The persistence and severity of these painful injuries has resulted in the development of the chronic pain syndrome, complicated by a mood disorder

As the ankle and knee pain developed much later, it is probable that they developed as a result of the chronic limp, which is directly related to the accident-related back pain, notably left sacroiliac joint pain. Therefore the ankle and knee pain are probably indirectly causally related to the accident.

Q: Are there any medical conditions or injuries which existed prior to the motor vehicle accident which have an effect on the client's current medical condition? If so, what are the conditions or injuries and what effect do they have on her current medical condition?

No, there were no significant predisposing factors. This client had no meaningful pre-accident symptoms and led an unrestricted lifestyle socially, recreationally and professionally.

She clarified that the left arm symptoms reported in 2009 (see ER visit from June 14, 2009) were likely related to an arm or wrist strain while pushing her son's bedroom furniture, and the symptoms resolved within a few days with no subsequent pain or restriction. This is consistent with the absence of these symptoms in Dr. XX's records.

Other than one mention of back pain in Dr. XXr's clinical records on October, 2010, her pre-accident visits are primarily related to hypertension and perimenopausal symptoms. Given the presence of mild facet and disc degenerative changes on the x-ray from January, 2011, there was pre-existing degenerative changes (which are very common and often asymptomatic). At most, these



changes possibly resulted in mild pre-disposition to developing back pain from the accident. However, it is highly improbable that she would have spontaneously developed chronic back pain had the accident not occurred. The presence of these degenerative changes are clinically insignificant in many patients, and there is no relationship between these changes and the accident-related left sacroiliac joint pain, which is the predominant cause of her current back pain and referred leg symptoms.

# **DISABILITY:**

Q: Please address the following issues with respect to each impairment: the nature of the impairment, the permanence of the impairment, the specific function that is impaired, the importance of the specific function to the person, and whether the impairment was directly or indirectly sustained as the result of the accident?

These diagnoses result in impairments that restrict the following important functions: prolonged walking, sitting, standing, repetitive bending/pushing/pulling, heavy lifting, high impact physical activities (for example, running, jumping) and extension, flexion or rotation of the neck. These impairments are serious and permanent and have been continuous since the accident.

The relatively high score on the psychosocial score of the pain questionnaire is consistent with a significant degree of impairment due to ongoing psychosocial changes.

Q: Was the impairment causally related to the accident on the above date of loss?

Yes, see above discussion of causality.

Q: Please provide an opinion with respect to whether the impairment has been continuous since the accident.

Yes, the impairment has been continuous since the accident.

Q: Please provide an opinion with respect to whether the impairment of function interferes with the client's usual activities of daily living?

When considered together in the context of a chronic pain condition, these diagnoses result in impairment that effect the client's ability to maintain activities of daily living, including personal care (at times requiring her husband's help to remove shirts), driving (due to pain with prolonged sitting), cooking (due to difficulty standing or bending), leisure/recreational activities and social activities that require the use of the above-noted functions that were normally engaged in at the time of the accident. This includes being unable to return to community theatre

Q: Please provide an opinion with respect to whether the function impaired is necessary for the client to provide his own care or well-being?

Yes, the functions impaired are required for the client to provide self-care, including bathing, dressing and self-grooming. Although she sometimes requires



her husband's help to remove shirts, she manages independently with most selfcare activities most of the time

Q: Please provide an opinion with respect to whether the function impaired impacts upon the client's ability to engage in homemaking/housekeeping activities?

The client has limitations to perform homemaking duties requiring heavy lifting, repetitive bending and prolonged standing or walking, and she should avoid the heaviest chores such as shoveling and lawn care.

Q: Subject to the client reasonably participating in the recommended treatment of the impairment, is the impairment expected to improve?

Based on the client's current condition, and without stabilization of pain and function, it is probable that the condition and resulting impairment will continue to deteriorate. Subject to the client reasonably participating in the recommended treatment (below), it is possible that the client's symptoms will be better controlled, but it is probable that the impairment will not significantly improve due to the chronicity and severity of the diagnoses.

#### **EMPLOYABILITY:**

Q: Please provide an opinion with respect to whether the client's injuries, sustained in the motor vehicle accident, prevent her from engaging in any form of employment for which she may be reasonably suited by way of education, training and experience? If you are of the opinion that the client is now limited in vocational options, please state so and discuss the limitations. Please also advise if you believe the client has suffered a loss of competitive advantage in any employment field she may ultimately be able to work in and the types of restrictions she will have on any occupation ultimately chosen.

This client was previously self-employed with her husband in the management and operations of their restaurant. Demands include many of the important functions that are currently restricted. Based on this client's current restrictions, she will have permanent impairment restricting her ability to maintain working in her chosen profession at pre-accident levels, therefore limiting her vocational options. Given the severe global impact of the chronic pain syndrome with mood disorder on Mrs. Rida, including deconditioning, poor sleep, altered concentration/attention and mood changes, she will be unable to sustain any form of productive employment in the foreseeable future.

She reported, however, maintaining hope of working again if her condition were to improve. While it remains improbable that her symptoms will improve enough to sustain productive employment after this long, additional treatments may provide improved pain severity and stability such that she could consider non-competitive employment or non-vocational activities.

#### FUTURE MEDICAL TREATMENT AND RECOMMENDATIONS:

Q: Please provide an opinion with respect to whether the client would benefit from any further testing, examination or treatment?



The following are recommended to attempt to stabilize current pain and function and to possibly delay further deterioration:

- Medical options for the family doctor to consider include multimodal antineuropathic analgesia, including: Nortriptyline 10-20 mg nightly; Gabapentin 100 mg to 600 mg. These can help to stabilize the pain and sleep-wake cycle without the side effects of opioid analgesia;
- Aquatherapy, swimming and a supervised low impact aerobic exercise program is recommended for stabilization and long-term management of this pain condition;
- Assistive device:
  - Cane to help avoid chronic limping
  - Orthotics or proper footwear for plantar fasciitis and Achilles tendinitis
- Referral to an Interventional Pain Clinic to consider interventional treatment options to help stabilize the pain and enable less pain with more rehabilitative efforts, including:
  - Diagnostic sacroiliac joint (SIJ)-pain assessment to objectively document SIJ- mediated pain, which can also help determine a possible treatment option to stabilize ongoing mechanical back pain;

Sacroiliac joint pain is often associated with chronic low back pain and tends to remain chronic without further treatment. Diagnostic sacroiliac injections can help to determine if the sacroiliac joints specifically are contributing to the pain. A negative result would imply that the pain generator is more likely from an alternate source, such as myofascial tissue, intervertebral disc, facet joints or neuropathic in nature. Noninvasive treatments include swimming/Aquatherapy and wearing a sacroiliac belt during activity, which helps to stabilize the pelvis and decrease pain. This pain may possibly improve with concurrent treatment of back pain from alternate pain generators. Occasionally sacroiliac injection with corticosteroid, prolotherapy or radiofrequency neurotomy is necessary for control of persistent symptoms. Osteopathic and chiropractic treatment appear particularly beneficial for sacroiliac pain.

 Diagnostic facet-pain assessment to objectively document facetmediated pain, which can also help determine a possible treatment option to stabilize ongoing mechanical neck and/or back pain;

Based on the characteristics and location of spinal pain, it is possible that the pain is generated from the facet joints of the spine. A diagnostic facet-pain assessment provides a more objective and evidence-based method of determining if the facet joints are the source of pain generation. A diagnostic facet-pain assessment can be valuable in the determination of prognosis for mechanical spinal pain (with respect to symptom control). A negative result would suggest that the pain generator is more likely from an alternate source, such as myofascial tissue, intervertebral



- disc, sacroiliac joint or neuropathic in nature. In addition, it is useful in providing some direction for possible treatment options for post¬whiplash or strain injuries.
- Lidocaine +/- ketamine infusions for medically-resistant neuropathic pain;
- Possible epidural steroid injections for radicular pain;

Based on the description of ongoing pain radiating down the left arm, supported by physical examination and findings reported on MRI (small herniations), it may be reasonable to consider a trial of fluoroscopically-guided epidural steroid injections. These injections can possibly improve the painful symptoms of spinal pain and limb pain due to underlying disc disease with nerve root impingement or radiculitis. If efficacious, these treatments can be repeated every 3-6 months as required.

- Referral to a multidisciplinary pain management program, addressing physical, psychological and self-management issues concurrently. Multidisciplinary rehabilitation is recommended for the treatment of chronic pain by several authoritative bodies, including the College of Physicians and Surgeons of Ontario, American Society of Anesthesiologists and the International Association for the Study of Pain. Goals of multidisciplinary care include both subjective outcomes as well as objective functional outcomes (e.g. return to work). The physical component would be a reconditioning program that focuses on improving strength, endurance and flexibility of the upper and lower extremities, cervical and lumbar spine regions and core stability as well as lower impact cardiovascular and respiratory conditioning. This needs to be carried out in a supervised and progressive manner in order to be effective. The overall objective is to stabilize both the pain condition and level of function. This client would be a strong candidate for a multidisciplinary pain management program. Unfortunately there are few publically funded multidisciplinary pain management programs in Ontario, but a coordinated effort amongst providers addressing each area of need would be appropriate.
- Physical therapy for various j oint and tendon diagnoses
- Further investigations, if not already complete:
  - Left shoulder ultrasound

This concludes the Independent Chronic Pain Assessment on your client. Please feel free to contact my office for clarification of any of the materials presented.

Yours sincerely,

K. Smith, M.D., F.R.C.P. (C)

#### REFERENCES:

The following references have been used in support of opinions in this assessment. This list is not all-inclusive and may be updated from time to time.



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Court File No.

# ONTARIO SUPERIOR COURT OF JUSTICE

BETWEEN:

Р	lair	ntiff
	all	IUII

And

Defendants

# **ACKNOWLEDGMENT OF EXPERT'S DUTY**

- 1. My name is Dr. Kevin Smith. I live at Toronto, in the Province of Ontario.
- I have been engaged by or on behalf of \_\_\_\_\_ to provide evidence in relation to the above-noted court proceeding.
- I acknowledge that it is my duty to provide evidence in relation to this proceeding as follows:
  - (a) To provide opinion evidence that is fair, objective and non-partisan;
  - (b) To provide opinion evidence that is related only to matters that are within my area of expertise; and
  - (c) To provide such additional assistance as the court may reasonably require, to determine a matter in issue.
- 4. I acknowledge that the duty referred to above prevails over any obligation which I may owe to any party by whom or on whose behalf I am engaged.

Date: April 27, 2015	Signature:
	Dr. Kevin Smith



# TAB 5. DR. MARK FRIEDLANDER - CV

# Mark Friedlander, MB, ChB, FRCPC

101-240 Duncan Mill Road North York, Ontario M3B 3S6 Tel: 416-840-5990 ext. 24

Tel: 416-840-5990 ext. 2

Fax: 647-427-4100

Experts@AllevioClinic.com

# **EMPLOYMENT**

Allevio Pain Management Clinic, Toronto, Ontario	
Consultant, Chronic Pain Management	2013 - Present
Independent Medical Assessor for Chronic Pain	
	2008 - Present
Pinnacle Health Centre, Richmond Hill, Ontario	
Consultant, Chronic Pain Management	2005 - Present
University of Toronto, Department of Anesthesia, Toronto, Oni	tario
Continued Medical Education Committee	2000 - Present
University of Toronto, Faculty of Medicine, Toronto, Ontario	
Assistant Professor	1992 - Present
North York General Hospital, Toronto, Ontario	
Staff Anesthesiologist	1992 - Present
North York General Hospital, Toronto, Ontario	
Consultant, Chronic Pain Management	1992 - Present
Controversies in Perioperative Medicine Anesthesia Conferen	nces
Co-director	1998 - Present
North York General Hospital, Toronto, Ontario	
Medical Director, Pain Management Service	1992 - 2006
North York General Hospital, Toronto, Ontario	
Director, Obstetric Anesthesia	1995 - 2000
North York General Hospital, Toronto, Ontario	
Search Committee, Chief of Anesthesia,	2006
Ontario Medical Association	
Member at Large, Executive of the Section of Anesthesia,	2005 - 2007
North York General Hospital, Toronto, Ontario	1992 - 1996
Committee Member: Obstetric Planning Committee	
Committee Member: Maternal Newborn Program	
Committee Member: Pediatric Surgery Advisory Committee	
Ontario Medical Association	
Chair, Environment Committee, Anesthesia Section,	2006 - 2010
North York General Hospital, Toronto, Ontario	
Business Manager, Department Anesthesia	2000 - 2013



North York General Hospital,	Toronto,	Ontario
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PACU committee 2006 - 2011

#### North York General Hospital, Toronto, Ontario

Operating Room Coordinater 2008 - 2012

#### Toronto General Hospital, University of Toronto, Toronto, Ontario

Staff Anesthesiologist 1991 - 1992

Cross-Appointment: Director, Dept. Obstetrics, Gynecology and Neonatology

Director and Founder. Acute Pain Service

Director, Obstetric Anesthesia

Coordinator, Resident Electives in Pain Management

## Toronto General Hospital, Toronto, Ontario

Joint Practice Committee, Obstetrics and Gynecology 1991 - 1992

Prenatal Teacher, Childbirth Education

#### Acute Pain and Anesthesia Research

Investigator 1990 - 2000

## **LICENSURE**

General License, Province of Ontario, Canada.	1987
Medical License, Province of Saskatchewan, Canada	1985
Medical License, State of Washington, USA	1984
Medical Council of Canada Evaluating Examination (MSS)	1984
Medical License General Medical Council of Great Britain	1983
Medical License Republic of South Africa.	1983
Visa Qualifying Examination (VQE) USA.	1983
ECFMG Certification, USA.	1982

# EDUCATION - PROFESSIONAL DEGREES AND DIPLOMAS

Fellow of the Royal College of Physicians of Canada (Anesthesia)	1990
Licentiate of Medical Council of Canada (LMCC)	1986
Federated Licensing Examination (FLEX, FWA 80) USA	1983
Bachelor Medicine & Surgery (MB,ChB), University of Cape Town, South	Africa
	1981

## **ACHIEVEMENTS & ACTIVITIES**

Co-Director, Controversies in Perioperative Medicine Anesthesia Conferences in France/Italy/Spain 1998, 2000, 2001, 2003, 2005, 2007, 2009, 2011, 2013, 2015 Organised Acute Pain service (1991-93) at two major Toronto Hospitals:

•	Toronto General Hospital	1990-1992
•	North York General Hospital	1992-2006

Established Continuous Epidural Analgesia on wards North York General Hospital
1994

Protocol for Epidural Narcotic Analgesia in Obstetrics, North York General Hospital 1994

Visiting Teacher and Clinical Anesthesiologist, Face to Face Mission,

Ekaterinberg, Russia 2000

2006



Cusco, Peru

Volunteer, Teaching and Clinical Anesthesiologist, Interplast Humanitarian Organisation,

My Tho, Vietnam
 Quy Nhon, Vietnam
 Ecuador
 Ecuador
 Health through Peace, University of Toronto
 effort to bring together medical students from Middle Eastern Countries
 Mentor, Medical Students, University of Toronto
 2007 - Present Conference assistant (assistance with organizing and moderating) Anesthetic
 Practice (annual conference of the University of Toronto, Dept Anesthesia and annual Onatrio Anesthesiologists Meeting.)
 Private Surgical Clinic consultant including Herzig Eye Institute, Clinics of Dr. J.

# MEDICO-LEGAL AND CONSULTING WORK

Starr, Cumberland Clinic, Digestive Health Clinic

Canadian Medical Protection Association:

Pre-Trial assessment of ability to defend malpractice allegation involving consultant and resident anaesthetists

Consultant pain management expert in Coroner's inquiry in Maternal death

Consultant investigator in allegations of physician incompetence in

Northern community hospital

Expert Consultant in many cases of medical litigation both for defendants and plaintiffs

Review of Pain Management for Windsor Regional Hospital and the Windsor area 2007

Review and Report undertaken on behalf of the Hay Group Medical Consultants

CMPA Expert witness Case of Halothane Hepatitis

#### **MEMBERSHIP**

Canadian Anesthesiologist's Society
American Society of Anesthesiologists
Member The International Spine Intervention Society
Ontario Medical Association
Medical Staff Association, North York General Hospital
Member: International Spine Intervention Society
MOCOMP (Maintenance of Competence of the Royal College Of Physicians and

## ANESTHESIA AND PAIN MANAGEMENT TRAINING

# Clinical and Research Fellow in Anesthesia and Pain Management

1990 - 1991

Toronto General Hospital

Surgeons of Canada)

Clinical responsibilities included the development and management of the Acute Pain Service, clinical anaesthesia including Cardiac, Thoracic, General and Gynaecological Surgery, Liver and Lung Transplant. Responsible for the



coordination of Obstetric Anaesthesia Services between a large Anaesthesia Department and a busy Teaching Obstetric Unit.

Resident training in Anesthesia, University of Toronto	1987 - 1990	
Mt. Sinai Hospital	June-Dec. 1987	
Wellesley Hospital.	JanJune 1988	
St. Michael's Hospital	July-Dec. 1988	
Hospital for Sick Children	JanJune 1989	
<ul> <li>Sunnybrook Medical Centre.</li> </ul>	July-Dec. 1989	
<ul> <li>Clinical Research Resident, Toronto General Hospital.</li> </ul>	JanJune 1990	
Resident, Internal Medicine, La Guardia Hospital, New York City, Cornell		

Medical College and Northshore University, New York, NY	986 - 1987
MEDICAL PRACTICE	
Family Practice  Solo private practice in a rural community, Kindersley, Saskatchewan, O Active Staff Member, Kindersley Union Hospital. Busy obstetric and paer practice.	
<b>Resident Medical Officer,</b> The London Clinic, London, England Internal Medicine and Oncology	1985
Family Practice with Obstetrics and In-patients, Canora, Saskatcher	
Family Practice with Obstetrics and In-patients, Bengough, Saskato	hewan <b>1984</b>
House Officer, Northwick Park Hospital, London, England Cardiology, General Surgery, Orthopaedics Postgraduate training in Psychiatry - Locum posts in various London Teaching Hospitals (Obstetrics, Gynaecology, Respiratory and Emergency Medicine)	
Family Practice, Durban, South Africa	1983
<b>Medical Officer,</b> Sir Albert Robinson Mine Hospital Johannesburg Gold Reef, South Africa Experience in Infectious Disease, Trauma and Anaesthesia	1983
<b>Medical Officer,</b> Somerset Hospital, Cape Town, South Africa Emergency Medicine	1983
Senior House Officer, London, England (Hammersmith, Northwick Park, Stoke Mandeville) Experience in Emergency Room, Internal Medicine, Geriatrics, Obstetri Gynaecology	1983 cs and
Rotating Internship, Groote Schuur Hospital, University of Cape To Africa Medicine, Surgery, Paediatrics, Obstetrics and Gynaecology	own, South 1982



## COURSES AND ELECTIVES

Physician in Charge, March of the Living Youth Program, Poland and Isra	ael
	1994
Patient Controlled Analgesia, Vancouver, British Colombia	1990
Advanced Cardiac Life Support Course	1990
Paediatric Critical Care, Hospital for Sick Children, Toronto, Ontario	1989
Chronic Pain Management, Sunnybrook Medical Centre, Toronto, Ontario	1989
Elective in Anaesthesia at Hadassah Medical Centre Hebrew University of Jerusalem & Tel Hashomer Medical Centre, University of Aviv, Israel	<b>1989</b> of Tel
Regional Burn Centre, Wellesley Hospital, Toronto, Ontario	1988
Neonatal Resuscitation Course, Mt. Sinai Hospital, Toronto, Ontario	1987
Advanced Trauma Life Support Course	1986
African Mission Hospital, Eastern Transvaal, South Africa	1980

#### REFERRED PUBLICATIONS

- Meperidine to control shivering associated with platelet transfusion reaction.
   Friedlander M, Noble W. Can J Anaesth 1989; 36:4, 460-2.
- An Unusual Reaction to Precurarisation. Friedlander M, Brebner J. Can J Anaesth 1991;38:7:944
- Epidural vs Intravenous Fentanyl infusion in Post-thoracotomy patients: Analgesic and pharmokinetic effects. L Panos, AN Sandler, DG Stringer, N Badner, S Lawson, M.Friedlander, G.Koren. Can J Anaesth 1990;37:S66
- Epidural vs Intravenous Fentanyl infusion in Post-thoracotomy patients: Analgesic and pharmokinetic effects. L Panos, AN Sandler, DG Stringer, N Badner, S Lawson, M.Friedlander, G.Koren. Anesthesiology 73:3A:A831, 1990
- Epidural vs Intravenous Fentanyl infusion in Post-thoracotomy patients:
   Respiratory effects. DG Stringer, AN Sandler, L Panos, N Badner, S Lawson,
   M Friedlander. Can J Anaesth 1990;37S16
- Hypoxic Pulmonary Vasoconstriction in Single Lung Anaesthesia in Human Subjects. M Friedlander, AN Sandler, B Kavanagh, S Lawson, L Panos, T Winton, J Benumof. Can J Anaes 1991;38;4(II) A95
- A Double blind, Placebo controlled trial of Transdermal Fentanyl for Post-Hysterectomy Pain Relief. II: Respiratory Effects. AN Sandler, AD Baxter, P Norman, B Samson, M.Friedlander, S Lawson, K Hull. Can J Anaesth 1991:38:4(II),A114
- Double blind, Placebo controlled trial of Transdermal Fentanyl for Post-Hysterectomy Analgesia. AN Sandler, AD Baxter, P Norman, B Samson, M.Friedlander, Anesthesiology
- 75:3A:A707.1991
- A Randomized double-blind comparison of Lumbar Epidural and Intravenous Fentanyl infusions for Post-Thoracotomy Pain Relief: Analgesic, Pharmacokinetic and Respiratory Effects. AN Sandler, D Stringer, L Panos,



- N Badner, M Friedlander, G Koren, J Katz, J Klein Anesthesiology, 77:4;626-634.1992
- Does Pre-incisional Multi-Modal Nociceptive Blockade Reduce Post-Operative Pain? J Katz, AN Sandler, H Nierenberg, S Roger, J Boylan, M Friedlander Canadian Pain Society 1992
- Pain after Thoracic Surgery involves a Sensory Memory-like Mechanism. J Katz, B Kavanagh, AN Sandler, H Nierenberg, M Friedlander, J Boylan,
- Is Post-operative Pain reduced by preoperative multimodal nociceptive blockade? A randomized, double blind, placebo controlled study. B Kavanagh, J Katz, AN Sandler, H Nierenberg, J.Boylan, A Davies M.Friedlander, Can J Anaes 39:5;1992;A76
- Pain and narcotic use following thoracic surgery are reduced by lumbar epidural fentanyl: a randomized prospective double-blind crossover study. B Kavanagh, J Katz, AN Sandler, H Nierenberg, J.Boylan, M.Friedlander, A Davies Can J Anaes 39:5:1992:A79
- Preemptive Analgesia. J Katz, B Kavanagh, AN Sandler, H Nierenberg, J Boylan, M.Friedlander,
- B Shaw. Anesthesiology, 77:439-446,1992.
- Hypoxic Pulmonary Vasoconstriction in Single Lung Ventilation in the Lateral Decubitus Position. Anesth Analg 1992;74:S100 M.Friedlander, AN Sandler, B Kavanagh, T. Winton, J Benumof.
- Transdermal fentanyl: Postoperative Analgesia with analgesic and respiratory effects. AN Sandler, A Baxter,B Samson, S.Roger K Hull J Katz, M.Friedlander, M Clairoux. Int Assoc Study Pain August 1993.
- Postoperative analgesia with transdermal fentanyl, analgesic and respiratory effects.AN Sandler, A Baxter,B Samson, S.Roger K Hull J Katz, M.Friedlander, M Donnelly Can J Anaesth 40:5;1993;A51.
- Is hypoxic pulmonary vasoconstriction important during one lung ventilation in the Lateral Decubitus Position? M.Friedlander, A.Sandler, B.Kavanagh, T.Winton, J.Benumof, Can J Anaesth 1994;41:1:26-30
- A double blind comparison of ropivacaine 0.5%, 0.75%, 1.0% and bupivacaine 0.5%,injected epidurally, in patients undergoing abdominal hysterectomy. BT Finucane, AN Sandler, J Mckenna, D Reid, AL Milner, M. Friedlander, D Muzyka, S O'Callaghan-Enright, V Chan. Can J Anaesth 1996/43:5:442-9
- Pharmacokinetics of three doses of epidural ropivacaine during hysterectomy and comparison with bupivacaine. AN Sandler, E. Arlander, BT Finucane, A Taddio, V Chan, A Milner, SO Callahan-Enright, M Friedlander, D Muzyka Can J Anaesth 1998/45:9/843-849
- Prospective study on incidence of transient radicular irritation, clinical efficacy and recovery profile with 1% hyperbaric spinal lidovaine in short urological procedures. D Tong, F Chung, M Friedlander, J Bremang, J Wong, G O'Leary, D Streiner Anesthesiology V89, No 3A, Sept 1998, A19.
- Comparison of Epidural anaesthesia with ropivacaine 0.5% and bupivacaine 0.5% for Caesarean Section. E. Crosby, A Sandler, B Finucane, D Writer, D. Reid, J McKenna, M. Friedlander, A Miller, S O'Callaghan-Enright, H Muir, R Shukla. Can J Anaesth 1998/45:11/pp1066-1071



### NON-REVIEWED PUBLICATIONS

 The Acute Pain Service: How to establish one in a Community Hospital. Cont Anaesthesia 3:4;1993 pp13-19 M. Friedlander

### GUEST LECTURER

### Conferences

- Analgesia in Obstetrics. Symposium for Obstetrical Nurses, May 1991 (Toronto General Hospital).
- "Anaesthesia What's new?" Surgical Update, NYGH Ramada Rennaissance Hotel, December 2, 1993.
- "Epidural Analgesia in the Community Hospital" Anaesthetic Practice '93, Royal York Hotel, Toronto, 5th November, 1993.
- "Is PCA without risk?" Anaesthetic Practice '95, University of Toronto, November 1995.
- Setting up an Acute Pain Service in the Community Hospital. Workshop, Regional Anaesthesia & Analgesia '98. University of Toronto, Hotel Inter-Continental, Toronto, October 1998.
- Epidural Analgesia on the floor with PCEA. Regional Anaesthesia Conference, An ASTRA Symposium, Deerhurst Resort, May 1999.
- How to Initiate an Epidural service on the floor. Regional Anaesthesia & Analgesia '98. University of Toronto, Hotel Inter-Continental, Toronto, October 1999.

#### Lectures

- "General, Regional and Continuous Spinal Anaesthesia" Lecture, Lyphomed Canada Inc. 31 January. 1991.
- "Epidural and Spinal Narcotics in Obstetrics", Telemedicine Canada, May 7, 1992.
- Setting up a PCA program. Telemedicine Canada, May 1995
- "Anaesthesia" Radio Talk Show. CFRB 1010 Toronto, January 1996.
- "Pain Management" Radio Talk Show, CFRB 1010 Toronto, March 1996.

### **Grand Rounds**

- "Spinal Opioids in Obstetric Anaesthesia" presented at combined Grand Rounds of Departments of Obstetrics and Anaesthesia, Toronto General Hospital (Jan. 1991).
- Postoperative Pain Management, Department of Physiotherapy, Toronto General Hospital, March, 1991.
- "Patient Controlled Analgesia and Epidural Narcotics for Postoperative Analgesia in Thoracotomy Patients". Department of Thoracic Surgery, Toronto General Hospital, April, 1991.
- Acute Pain Management in Medical Patients. Department of Internal Medicine, Toronto General Hospital, April, 1990.
- "Post-Caesarean Section Analgesia- What's new?" Department of Obstetrics, North York General Hospital, February 1992.
- "What's involved in starting an Acute Postoperative Pain Program"
   Departments of Nursing and Pharmacy, North York General Hospital, 26th August, 1992.



- "What's new in Anaesthesia" Department of Medicine, North York General Hospital, 10 February, 1993.
- "Introducing PCA to your patients and our hospital." Surgical Grand Rounds, NYGH, September 23, 1993.
- "Modern Pain Control Options" North York General Hospital Core Lecture Series, December 1993.
- Obstetric analgesia and "Walking Epidurals", Dept. Family Practice Grand Rounds, December 1995.
- Analgesia for Genetic Termination: A Symposium. Dept. Genetics, North York and Credit Valley Hospitals, November 1996.
- ACLS review: Dept. Nursing, North York General Hospital Nov. 1997
- Volunteering in the developing World: working with Interplast, May 2008 (North York General Hospital)

### **TEACHING**

- Teaching is an integral part of the work of an anesthesiologist at North York General Hospital. Teaching occurs in all aspects of daily routine and weekend and night calls. There are always medical students, residents and allied health care trainees who seek and receive teaching in the course of clinical activities. Most of these are undocumented occurrences.
- Antenatal Education, Toronto General Hospital (Sept. 1990 Jan. 1992).
- Education in Patient Controlled Analgesia and Epidural Narcotics, Toronto General Hospital
- 1990-1991.
- Current teaching in Dept Anesthesia, North York General Hospital (Emergency Medical Services Technicians, Respiratory Therapy Students, Anesthesia Assistants, Medical Students, Obstetric Residents, Anesthesia Residents) 1992-present.

### REFERENCES AVAILABLE UPON REQUEST



# TAB 6. DR. MARK FRIEDLANDER - SAMPLE REP



### TAB 7. DR. MICHAEL GOFELD - CV

# Michael Gofeld MD, DEAA

101-240 Duncan Mill Road North York, Ontario M3B 3S6

Tel: 416-840-5990 ext. 24

Fax: 647-427-4100

Experts@AllevioClinic.com

# **EMPLOYMENT**

St. Michael's Hospital, Toronto, Ontario, Canada

Staff Anesthesiologist, Department of Anesthesia

2013 - Present

University of Toronto, Toronto, Ontario

Assistant Professor, Anesthesia 2013 - Present

School of Medicine, University of Washington, Seattle, Washington, United

States

Director Clinical Operations, Center for Pain Relief (2008-2010) and Attending

Physician, Department of Anesthesiology and Pain Medicine 2010 - 2013 **School of Medicine, University of Washington,** Seattle, Washington, United

States

Attending Physician, Department of Neurological Surgery 2008 - 2013

### **EDUCATION**

### **Degrees**

MD, Dept of Medicine, Crimea Medical Academy, Simferopol, Ukraine 1986 - 1989 MD (Yrs 1-3), Dept of Medicine, Ural Medical Academy, Sverdlovsk, Sverdlovskaya oblast', Russian Federation 1983 Sep - 1986 Jun

### Postgraduate, Research and Specialty Training

Teaching Scholars Program, Medical Education and Biomedical Informatics, University of Washington, Seattle, Washington, United States, Supervisor(s): Dr. Lynn Robins 2010 - 2011

Clinical Fellow, Department of Anesthesia, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada, Supervisor(s): Dr. Gil Faclier 2005 - 2006

Resident, Anesthesiology, Belinson Medical Center, Tel Aviv University, Israel, Supervisor(s): Dr. Leonid Idelman 1995 - 2000

Resident, General Surgery, Department of Surgery, HaEmek Medical Center, University of Haifa, Israel, Supervisor(s): Dr. J. Saifan 1995

Intern, General Surgery, City Hospital #6, Simferopol, Ukraine, Supervisor(s): Dr.



## HONOURS AND CAREER AWARDS

**Kristal Award,**2000
National Research Conference of Anesthesiology Residents, Israel. (Research Award) For project: "Changes in brain antioxidant capacity after transient focal ischemia in rats".

# **Merit Award Education Competition**

2013 Jul - 2015 Jun

Dept of Anesthesia, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. (Multilevel Education)

Teacher of the Year Award

2012

University of Washington. (Postgraduate MD, Clinical Fellow)

Stephen Butler Teacher of the Year Award

2011

University of Washington. (Postgraduate MD, Clinical Fellow)

# PROFESSIONAL AFFILIATIONS

American Academy of Pain Medicine Ultrasonography President and Chairman of Board	2011 - Presen
North American Neuromodulation Society Member	2009 - Present
American Society of Regional Anesthesia Active Member	2008 - Present
International Association for the Study of Pain Member	2001 - Presen
World Institute of Pain Member	2000 - Presen
Canadian Anesthesiologists' Society Member	2005 - 2008
American Society of Anesthesiology Member	2004 - 2008
Canadian Pain Society Founder and Member of Interventional Pain Special Interest Group	2004 - 2008
Israeli Pain Association Member	2000 - 2004
Israel Society of Anesthesia Member	1995 - 1999

# ADMINISTRATIVE ACTIVITIES

### American Society of Regional Anesthesia

• Vice Chair, Ultrasound in Pain Medicine Special Interest Group 2009 – 2010

Member, Annual Meeting Organizing Committee 2009

### International Association for the Study of Pain

 Member, Quality Assurance Committee, Special Interest Group in Neuromodulation 2012 - Present



### **North American Neuromodulation Society**

Member, Technology Assessment Committee

2009 - Present

### **University of Washington**

- UW Medicine, Seattle, Washington, United States.
   Member, R&D Committee Point of Care Ultrasound, Development of institutional education curriculum and practice guidelines in point of care ultrasound.
- School of Medicine New Curriculum Development Committee, Seattle, Washington, United States.

Member, Revising current curriculum (transition to practice phase). 2012

### World Institute of Pain

Member, Examination Board
 Chair, Canadian Chapter
 2000 - Present
 2006 - 2008

### **Canadian Pain Society**

Interventional Pain Special Interest Group, Canada.
 Executive Member 2004 - 2008

# Ministry of Health and Long-Term Care

Adult Chronic Pain Network Advisory Board, Toronto, Ontario, Canada.
 Member 2014 - present

## PEER REVIEW ACTIVITIES

### **Editor**

Current Headache and Pain Reports (Section Editor)
 2013 - Present

### Associate editor

Pain Practice
 Regional Anesthesia and Pain Medicine
 2014 Feb. - Present
 2014 - Present

### GRANTS. CONTRACTS AND CLINICAL TRIALS (LAST TWO YEARS)

- Principal Applicant. Unrestricted (gift) industry grants to support educational and research activities. SonoSite Inc. and Pajunk. 115,000 USD. [Donations] Seattle, Washington, United States.

# PUBLICATIONS (LAST TWO YEARS)

#### Peer-Reviewed

 M. Gofeld. New Horizons in Neuromodulation. Current Pain and Headache Reports. 2014 Mar;18(3):397. Impact Factor 1.672. Principal Author.



- M. Saulino, M. Gofeld. "Sonology" of Programmable Intrathecal Pumps. Neuromodulation. 2014 Feb. Epub ahead of print. Impact Factor 1.19. Co-Principal Author.
- Pezeshki PS, Woo J, Akens MK, Davies JE, Gofeld M, Whyne CM, Yee AJ. Evaluation of a bipolar-cooled radiofrequency device for ablation of bone metastases: preclinical assessment in porcine vertebrae. Spine J. 2014 Feb;14(2):361-70. Coauthor or Collaborator.
- Gofeld M, Brown MN, Bollag L, Hanlon JG, Theodore BR. Magnetic positioning system and ultrasound guidance for lumbar zygapophysial radiofrequency neurotomy: a cadaver study. Reg Anesth Pain Med. 2014 Jan;39(1):61-6 (Trainee publication, Brown MN, Hanlon JG). Principal Author.
- Pezeshki P, Akens MK, Gofeld M, Woo J, Whyne CM, Yee AJ. Therapeutic effect of bone targeted radiofrequency ablation in a 2 Rabbit Model of Femoral Carcinoma. Journal of Orthopaedic Research. 2014. In Press. Coauthor or Collaborator.
- Bhatia A, Gofeld M, Ganapathy S, Hanlon J, Johnson M. Comparison of anatomic landmarks and ultrasound guidance for intercostal nerve injections in cadavers. Reg Anesth Pain Med. 2013 Nov;38(6):503-7. Coauthor or Collaborator.
- Gofeld M, Krashin DL, Ahn S. Needle echogenicity in ultrasound-guided lumbar spine injections: a cadaveric study. Pain Physician. 2013 Nov;16(6):E725-30 (Trainee publication, Krashin DL). Principal Author.
- Gofeld M, Hanlon JG. Ultrasound-Guided Placement of a Paddle Lead Onto Peripheral Nerves: Surgical Anatomy and Methodology. Neuromodulation. 2014 Jan;17(1):48-53 Principal Author.
- Gofeld M, Bristow SJ, Chiu S, Kliot M. Preoperative ultrasound-guided mapping of peripheral nerves. J Neurosurg. 2013 Sep;119(3):709-13 (Trainee publication, Bristow SJ, Chiu S). Principal Author.
- McClintic AM, Dickey TC, Gofeld M, Illian PR, Kliot M, Kucewicz JC, Loeser JD, Richebe PG, Mourad PD. Rapid ultrasonic stimulation of inflamed tissue with diagnostic intent. J Acoust Soc Am. 2013 Aug;134(2):1521-9. Coauthor or Collaborator.
- Gofeld M, Restrepo-Garces CE, Theodore BR, Faclier G. Pulsed radiofrequency of suprascapular nerve for chronic shoulder pain: a randomized double-blind active placebo-controlled study. Pain Pract. 2013 Feb;13(2):96-103. Principal Author.
- Tych RE, Gofeld M, Jarvik JG, Kliot M, Loeser JD, McClintic AM, Ollos RJ, Pederson KD, Sparks RE, Terman GW, Mourad PD. Neuropathic tissue responds preferentially to stimulation by intense focused ultrasound. Ultrasound Med Biol. 2013 Jan;39(1):111-6. Coauthor or Collaborator.
- Garcia JD, Gofeld M, Illian PR, Loeser JD, Kliot M, McClintic AM, Ward A, Yao A, Mourad PD. Intense focused ultrasound as a potential research tool for the quantification of diurnal inflammatory pain. Ultrasonics. 2013 Jan;53(1):84-9. Coauthor or Collaborator.
- McClintic AM, Dickey TC, Gofeld M, Kliot M, Loeser JD, Richebe P, Mourad PD. Intense focused ultrasound preferentially stimulates subcutaneous and focal neuropathic tissue: preliminary results. Pain Med. 2013 Jan;14(1):84-92. Coauthor or Collaborator.



- Theodore BR, Olamikan S, Keith RV, Gofeld M. Validation of self-reported pain reduction after diagnostic blockade. Pain Med. 2012 Sep;13(9):1131-6 (Trainee publication, Olamikan S). Senior Responsible Author.
- Bollag L, Richebe P, Siaulys M, Ortner CM, Gofeld M, Landau R. Effect of transversus abdominis plane block with and without clonidine on postcesarean delivery wound hyperalgesia and pain. Reg Anesth Pain Med. 2012 Sep;37(5):508-14. Coauthor or Collaborator.
- Gofeld M, Montgomery K. Spine ultrasonography: interventions and diagnostics. Pain Management. 2012 Jul;2(4):373-82 (Trainee publication, K. Montgomery, Pain Medicine Fellow 2011-12). Senior Responsible Author.
- Chiu SC, Bristow SJ, Gofeld M. Near-infrared tracking system for epidural catheter placement: a feasibility study. Reg Anesth Pain Med. 2012 May;37(3):354-6 (Trainee publication, Chiu SC, Bristow SJ). Senior Responsible Author.
- Gofeld M, Bristow SJ, Chiu SC, McQueen CK, Bollag L. Ultrasound-guided lumbar transforaminal injections: feasibility and validation study. Spine (Phila Pa 1976). 2012 Apr 20;37(9):808-12 (Trainee publication, Bristow SJ, Chiu S, McQueen CK). Principal Author.
- Gofeld M, Bristow SJ, Chiu S. Ultrasound-guided injection of lumbar zygapophyseal joints: an anatomic study with fluoroscopy validation. Reg Anesth Pain Med. 2012 Mar;37(2):228-31 (Trainee publication, Bristow SJ, Chiu S). Principal Author.

## **Book Chapters**

- Gofeld M. Ultrasound-Guided Peripheral Nerve Stimulation. In: Bigeleisen P, Gofeld M, editor(s). Ultrasound-Guided Regional Anesthesia and Pain Medicine. 2nd edition. Lippincott Williams & Wilkins; 2014. In Press. Principal Author
- Krashin D, Gofeld M. Third Occipital Nerve Block and Cervical Medial Branch Block. In: Bigeleisen P, Gofeld M, editor(s). Ultrasound-Guided Regional Anesthesia and Pain Medicine. 2nd edition. Lippincott Williams & Wilkins; 2014. In Press (Trainee publication. Krashin D). Senior Responsible Author.
- Lee JM, Gofeld M. Ilioinguinal, Iliohypogastric and Genitofemeoral Nerve Blocks. In: Bigeleisen P. Gofeld M, editor(s). Ultrasound-Guided Regional Anesthesia and Pain Medicine. 2nd edition. Lippincott Williams & Wilkins; 2014. In Press (Trainee publication, Lee JM). Senior Responsible Author.
- Montgomery K, Gofeld M. Ultrasound-Guided Lumbar Spine Interventions. In: Bigeleisen P, Gofeld M, editor(s). Ultrasound-Guided Regional Anesthesia and Pain Medicine. 2nd edition. Lippincott Williams & Wilkins; 2014. In Press (Trainee publication, Montgomery K). Senior Responsible Author.
- Brown MN, Gofeld M. Musculoskeletal Ultrasonography. In: Bigeleisen P, Gofeld, editor(s). Ultrasound-Guided Regional Anesthesia and Pain Medicine. 2nd edition. Lippincott Williams & Wilkins; 2014. In Press. Co-Principal Author.
- Gofeld M, Shankar H. Chapter 56: Peripheral & visceral sympathetic blocks.
   In: Raj PP, editor(s). Practical Management of Pain. 5th edition. Elsevier;
   2014. p. 755-767.e2. Principal Author.
- Gofeld M, Shankar H. Chapter 67: Ultrasound-Guided Sympathetic Blocks: Stellate Ganglion and Celiac Plexus. In: Benzon H, Raja S, Fishman S, Liu S,



Cohen S, editor(s). Essentials in Pain Medicine. 3rd edition. Philadelphia: Elsiever Saunders; 2012. p. 494-501. Principal Author.

### PATENTS AND COPYRIGHTS

- Methods and Systems for Preoperative Ultrasound-Guided Tissue Mapping, Patent, Patent Application 61/564,546 filed 11/29/2011 UW Reference: 45731.01US1, Applied, United States, Michael Gofeld, Michel Kliot 2012
- Acoustic Palpation Using Non-Invasive Ultrasound Techniques for Identification of Target Sites and Assessment of Chronic Pain Disorders, Patent, Serial No.: 13/161,214, Applied, United States, Jeffrey G. Jarvik, Pierre D. Mourad, Michel Kliot, Robert C.A. Frederickson, Abbi M. McClintic, Trevor C. Dickey, Michael Gofeld
- Method of radiofrequency ablation utilizing bi-polar electrosurgical probe, Patent, Applied, CRFPCT001, United States, Jason Woo, Neil Godara, Kris Shah, Michael Gofeld

# PRESENTATIONS (LAST TWO YEARS)

## Invited Speaker.

2014 Jun 21

Overview, Patient Evaluation & Criteria for Intervention. 11th International Symposium of Ultrasound in Regional Anesthesia, Pain Medicine and Perioperative Applications (ISURA). Toronto, Ontario, Canada. (Continuing Education).

Workshop Instructor.

2014 Jun

Hands-on Workshop Ultrasound in Pain Medicine and MSK. 11th International Symposium of Ultrasound in Regional Anesthesia, Pain Medicine and Perioperative Applications (ISURA). Toronto, Ontario, Canada. June 22-23. (Continuing Education).

 Course Director,
 Facilitator, Speaker, Instructor. Ultrasonography in Pain Medicine. Level III
 Neurosonology. American Academy of Pain Medicine Ultrasonography (AAPMU). Las Vegas, Nevada, United States. June 28-29. (Continuing Education).

 Invited Speaker.
 From the surface to the depth: ultrasound in interventional pain therapy. 7th World Congress, World Institute of Pain. Maastricht, Netherlands. (Continuing Education).

Invited Speaker. 2014 May 1
 Treatment of Sacroiliac Pain. 4th Networking World Anesthesia Convention.

 Vienna, Not Required, Austria. (Continuing Education).

- Invited Speaker and Instructor.
   Treatment Options for Discogenic Pain. Interventional Pain Special Interest Group of the Canadian Pain Society. Vancouver, British Columbia, Canada. Canadian Interventional Pain Course. Available from: http://www.cipc2014.com/. (Continuing Education).
- Invited Speaker. 2014 Mar 1
  Spine Sonography. Department of Anesthesia, Emory University. Atlanta,
  Louisiana, United States. (Continuing Education).



- Course Director, Facilitator, Speaker, Instructor.
   2014 Mar
   Ultrasonography in Pain Medicine Level I and Level II. American Academy of Pain Medicine Ultrasonography (AAPMU). Atlanta, Georgia, United States.
   (March 28-30). (Continuing Education).
- Visiting Professor.
   Interventional Cancer Pain Management. Department of Anesthesia, Emory University. Atlanta, Georgia, United States.
- Invited Speaker.
   Management of Painful Bone Metastases; Interventional Options for Treatment of Osteoarthritis. Cleveland Clinic Foundation. Las Vegas, Nevada, United States. Available from: http://www.clevelandclinicmeded.com/live/courses/pain/default.asp. (Continuing Education).
- Course Director, Facilitator, Speaker, Instructor.
   Level II Spine Course. American Academy of Pain Management in Ultrasonography (AAPMU). Tampa, Florida, United States. (Jan 18-19). (Continuing Education).
- Invited Speaker and Instructor.
   Principles of Ultrasound and its use in Interventional Pain; Ultrasound vs Fluoroscopy vs CT. WIP Comprehensive Review and Workshop. London, United Kingdom. December 5-7 (Continuing Education).
- Invited Speaker. 2013 Nov 15
   Pathophysiology of Cancer Pain; Chronic Low Back Pain. Swiss
   Interventional Pain Society Annual Meeting. Montreux, Switzerland.
   (Continuing Education).
- Visiting Professor.
   2013 Nov 11
   Department of Anesthesiology, Sourasky Medical Center, Tel Aviv University.
   Israel.
- Organizer. 2013 Nov 9
   Ultrasonography in Pain Medicine Level 4. American Academy of Pain
   Medicine Ultrasonography (AAPMU). Los Angeles, California, United States.
   (Continuing Education).
- Visiting Professor.
   Department of Anesthesiology, Catholic University of Korea. Seoul, Korea, Republic Of.
- Course Director, Facilitator, Speaker, Instructor.
   Level III Neuro Course. American Academy of Pain Management in Ultrasonography (AAPMU). Las Vegas, Nevada, United States. (Oct 19-20). (Continuing Education).
- Invited Speaker. 2013 Sep 21
   Ultrasound in Pain Medicine. Californian Society of Interventional Pain Physicians Palos Verdes, California, United States. (Continuing Education).
- Course Director, Facilitator, Speaker.
   Ultrasonography in Pain Medicine Level 4. American Academy of Pain Medicine Ultrasonography (AAPMU). New Jersey, United States. (Continuing Education).
- Course Director, Facilitator, Speaker, Instructor.
   2013 Aug 17
   Ultrasonography in Pain Medicine Level 1. American Academy of Pain



Medicine Ultrasonography (AAPMU). Las Vegas, Nevada, United States. (Continuing Education).

 Organizer. 2013 Aug Ultrasonography in Pain Medicine Course. Dannemiller Foundation. Chicago, Illinois, United States. (Aug 2-3). (Continuing Education).

Organizer. 2013 Jul 13
 Ultrasonography in Pain Medicine Level 4. American Academy of Pain Medicine Ultrasonography (AAPMU). Denver, Nebraska, United States. (Continuing Education).

Instructor. 2013 Jun 14
 Ultrasound in Pain Medicine Workshop. World Institute of Pain. Genk,
 Belgium. (Continuing Education).

Invited Speaker. 2013 Jun 13
 Ultrasonography in Lumbar Spine Interventions. 14th WIP Benelux 2013

 Symposium. Lanaken, Belgium. (Continuing Education).

Organizer. 2013 Jun
 Ultrasonography in Pain Medicine Level II (MSK). American Academy of Pain
 Medicine Ultrasonography (AAPMU). Las Vegas, Nevada, United States.
 (June 15-16). (Continuing Education).

 Invited Speaker. 2013 May 25 Spinal Ultrasonography. Annual Meeting of Korean Pain Society. Daejeon, Korea, Republic Of. (Continuing Education).

Organizer. 2013 May 18
 Ultrasonography in Pain Medicine Level 4. American Academy of Pain Medicine Ultrasonography (AAPMU). Chicago, Illinois, United States.
 (Continuing Education).

Visiting Professor.
 Department of Anesthesiology, Sourasky Medical Center, Tel Aviv University.
 Tel Aviv, Israel.

Organizer. 2013 Apr 20
Ultrasonography in Pain Medicine Level I. American Academy of Pain
Medicine Ultrasonography (AAPMU). Washington DC, District of Columbia,
United States. (Continuing Education).

Visiting Professor.
 Department of Anesthesiology, Prince Wales Hospital, Chinese University.
 Hong Kong.

 Invited Speaker. 2013 Apr An Overview of Ultrasonography in Pain Medicine. International Symposium on Spine and Paravertebral Sonography for Anaesthesia and Pain Medicine (ISSPS). Hong Kong. April 5-7. (Continuing Education).

Course Director, Facilitator, Speaker, Instructor.
 2013 Ma
 Level III Spine Course. American Academy of Pain Medicine in Ultrasound
 (AAPMU). Las Vegas, Nevada, United States. (March 9-10). (Continuing Education).

Organizer. 2013 Feb 9
 Ultrasonography in Pain Medicine Level 4. American Academy of Pain
 Medicine Ultrasonography (AAPMU). Phoenix, Arizona, United States.
 (Continuing Education).



- Course Director, Facilitator, Speaker, Instructor.
   2013 Jan
   Ultrasonography in Pain Medicine Level II Course. American Academy of Pain Medicine in Ultrasound (AAPMU). Las Vegas, Nevada, United States.
   (January 12-13). (Continuing Education).
- Visiting Professor.
   Department of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women's Hospital, Harvard School of Medicine. Cambridge, Massachusetts, United States. January 22¬23, 2013.
- Invited Speaker.
   Ultrasonography in Neuromodulation. North American Neuromodulation
   Society (NANS) 16th Annual Meeting. Las Vegas, Nevada, United States.
   December 6-9. (Continuing Education).
- Invited Speaker and Instructor.
   2012 Nov 11
   Ultrasonography in Pain Medicine conference and workshop. Department of Anesthesia, Univerity of California San Francisco. San Francisco, California, United States. (Continuing Education).
- Organizer. 2012 Nov 10
   Ultrasonography in Pain Medicine Level 4. American Academy of Pain
   Medicine Ultrasonography (AAPMU). San Diego, California, United States.
   (Continuing Education).
- Invited Speaker, Moderator and Instructor.
   Special Ultrasound Workshop. American Society of Regional Anesthesia (ASRA) and Pain Medicine Annual Meeting. Miami, Florida, United States. November 15-17. (Continuing Education).
- Organizer. 2012 Oct 27
  Ultrasonography in Pain Medicine Level 4. American Academy of Pain
  Medicine Ultrasonography (AAPMU). Boston, Massachusetts, United States.
  (Continuing Education).
- Invited Speaker.
   2012 Oct 26
   Internally Cooled Radiofrequency Application in Interventional Pain Medicine.
   Chinese International Association for the Study of Pain (IASP) Chapter (CIASP). Beijing, China. (Continuing Education).
- Visiting Professor.
   2012 Oct
   Ultrasonography in Pain and Musculoskeletal Practice. Lucy Montoro
   Rehabilitation Institute and University of Sao Paulo. Sao Paulo, Brazil. Oct
   10-11.
- Organizer. 2012 Sep 22
   Ultrasonography in Pain Medicine Level 4. American Academy of Pain Medicine Ultrasonography (AAPMU). Chicago, Illinois, United States. (Continuing Education).
- Invited Speaker.
   2012 Sep
   Vertebroplasty and Osteocool Ultrasound in Pain Medicine. 1st European American Spine & Chronic Pain Symposium. Bol (Island of Brac), Croatia.
   Sept 14-16. (Continuing Education)



# TAB 8. DR. MICHAEL GOFELD - SAMPLE REPORT



# TAB 9. DR. PAT MORLEY-FORESTER - CV

# Dr. Patricia Kathleen Morley-Forster BSc, MD, FRCPC

268 Grosvenor Street London, Ontario N6A 4L6 Tel: 519-646-6000 ext. 65065

Fax: 519-646-6376

pat.morley-forster@sihc.london.on.ca

# **EMPLOYMENT**

University of Western Ontario, London, Ontario, Canada.

Clinical Professor, Schulich School of Medicine, Dept of Anesthesia and Perioperative Medicine

University of Western Ontario, London, Ontario, Canada

2004 - 2012

Clinical Associate Professor, Schulich School of Medicine, Dept of Anesthesia and Perioperative Medicine

St. Joseph's Health Care Pain Management Program

2002 – Present
Physician Program Leader, Duties include ensuring timely access to Pain Clinic
through triage process, overseeing utilization of resources, hiring and recruitment
of medical and non-medical personnel (Role descriptor available on request)

**University of Toronto,** Toronto, Ontario, Canada **2000 - Present** Affiliated Faculty Member, Centre for the Study of Pain (Invited Appointment).

**Lawson Research Institute**, London, Ontario, Canada **1997 - Present** Affiliate Investigator, (Invited Appointment).

St. Joseph's Health Care, London, Canada 1987 - Present Consultant, Department of Anesthesia,

**London Health Sciences Centre,** London, Canada **1987 - Present** Consultant. Department of Anesthesia.

**St. Joseph's Health Care,** London, Ontario, Canada 1993 - 2007 Consultant. Acute Pain Service.

**Centers for Pain Management,** Mississauga, Ontario, Canada **2006 - 2009**Consultant CPM

University of Western Ontario, London, Ontario, Canada 2001 – 2005

Earl Russell Endowed Chair in Pain Management. Duties included development and implementation of strategic plan, setting up governance model, establishment of new interdisciplinary research teams, grant-writing, recruitment and training of personnel, and fundraising for the endowment.

Locum Tenens, Owen Sound, Ontario, Canada 1998 - 1999
Grey-Bruce Regional Health Centre, Anesthesia Staff.

University of Western Ontario, London, Ontario, Canada 1993 – 2001

Resident Research Coordinator, Anesthesia Residency Program.

**University of Western Ontario,** London, Ontario, Canada **1988 – 2000** Director of Obstetric Anesthesia Program,



University of Western Ontario, London, Ontario, Canada 1987 - 1992Clinical Assistant Professor University of Toronto, Toronto, Ontario, Canada 1987 Assistant Professor Toronto General Hospital, Toronto, Canada 1983 - 1987Lecturer, Department of Anesthesia, Orthopedic and Arthritic Hospital, Ontario, Canada 1983 - 1987Courtesy Staff Consultant, Dept. of Anesthesia.

## **EDUCATION**

### **Degrees and Diplomas**

MD, University of Toronto, Undergraduate, Toronto, Ontario, Canada

1973 - 1977

BSc, University of Western Ontario, Undergraduate, Biology, London, Ontario, Canada 1970 - 1973

### Specialized Training

Advanced Cardiac Life Support Re-certification 2007 Wasser Pain Clinic, Mt. Sinai Hospital, Fellowship in Chronic Pain Management, Supervisor: Dr. Allan Gordon, Dept. of Neurology, University of Toronto, Toronto, Ontario, Canada Apr-Sept 2000 University of Western Ontario, Postgraduate Clinical Training in Cancer Pain Management. Supervisor: Dr. Dwight Moulin, Associate Professor, Dept. of Clinical Neurological Sciences, Toronto, Ontario Jan-Mar 1999 Sunnybrook Health Centre, Training session on Anaesthesia Crisis Simulator 1997 Victoria Hospital, A.C.L.S. Recertification Course 1996 McMaster University, Dept. of Epidemiology, Fundaments of Clinical Research Design, Seminar Course, Supervisor: Dr. D. Sackett 1986 Toronto General Hospital, Clinical Research Fellowship, Toronto, Ontario, Canada. Primarily peripheral cardiovascular and neuroanesthesia 1982 - 1983 Resident, University of Toronto, Anesthesia Residency Program, Toronto, Ontario, Canada 1978 - 1982 Mixed Internship, Ottawa Civic Hospital, Ottawa, Ontario, Canada 1977 - 1978

### Qualifications, Certifications and Licenses

Pain Medicine, Founder Status, Royal College of Physicians and Surgeons

2012

Diplomate Accreditation, American Academy of Pain Management (MCQ 2011-2015 invigilated examination)

Fellow, Royal College of Physicians & Surgeons of Canada, Canada

1982 - Present

1977 - Present Licensiate, Medical Council of Canada, License, Canada

### PROFESSIONAL DEVELOPMENT

Malpractice in Pain Medicine-Medico-Legal Conference, Toronto Sept 19.2015 Canadian Opioid Guideline Update Process, National Faculty Meeting, McMaster University July 17, 2015 Canadian Anesthesiology Society, Ottawa June 2015



Canadian Pain Society, Charlottetown	May 2015	5
Int Association for the Study of Pain, Buenos Aires	October,2014	4
Speaker, Canadian Anesthesia Society Conference, St John's	May 2014	
Canadian Pain Society Annual Conference, Winnipeg	May 2013	
Improving patient and physician satisfaction: Time management and	,	-
Communication skills November 8, 2012	Nov. 2012	2
•		
Canadian Anesthesiologists' Society, June 16-18, Quebec City, Queb		_
Principles and Practices of being an Effective Mentor. Presented by the		
Department of Anesthesia and Perioperative Medicine, May 10, Schu		_
of Medicine	2012	
Canadian Pain Society Annual Conference, May 23-26, Whistler, Britis	sh Colombia	
	2012	2
Canadian Conference on Physician Leadership, Canadian Medical A	ssociation	
sponsored April 13-14, Ottawa, Ontario	2012	2
Canadian Anesthesia Society Annual Conference, Toronto, Canada	June 2011	1
Canadian Pain Society Annual Conference, Niagara Falls, Canada	May 2011	1
International Association for the Study of Pain. 13th World Congress	on Pain:	
Montreal, QC, Canada.	2010	o
Lawrence S Bloomberg Faculty of Nursing, University of Toronto. Mo		
Education Forward: Innovative Models: Toronto, ON, Canada.	2010	
Canadian Anesthesiologists Society. CAS Annual Meeting: Montreal,		•
Canada.	2010	Λ
Canadian Pain Society. CPS Annual Conference: Calgary, AB, Canadian Pain Society. CPS Annual Conference: Calgary, AB, Canadian Pain Society.		
3rd Annual Anesthesia Conference of Kuwait.	2009	9
Inter-urban Pain Association of Ontario. Inter-urban Pain Association		_
Conference (Co-organizer): London, ON, Canada.	2009	
Speaker, Colegio Mexicano de Anestesiologia: Mexico City, Mexico	2009	
Canadian Pain Society. CPS Meeting: Quebec City, QC, Canada	2009	
Canadian Pain Society. CPS Pain Refresher Day. Toronto	2009	9
Pain Education Day: London, ON, Canada	2008	3
International Association for the Study of Pain. 12th World Congress	on Pain:	
Glasgow, Scotland, UK	2008	3
Canadian Interventional Pain Advanced Course, McGill Medical Simu	ulation	
Centre, Montreal	2008	8
Centres for Pain Management. Pain Day.	2008	8
Canadian Anesthesiologists Society. CAS Annual Meeting: Halifax, N		
oanaan, moonioogicio oodoloji o, le , amaan mooniigi mamaa,	2008	R
Canadian Pain Society. CPS Annual Conference: Victoria, BC, Canadian Pain Society.		
Canadian Fam Gooloty. Of Grandal Contention. Violona, Bo, Canad	2008	
Physicians and Surgeons of Ontario. Conference of CPSO Assessors		
,		
Canadian Anesthesiologists Society. CAS Annual Meeting: Toronto, 0		
0 " " " " " " " " " " " " " " " " " " "	2006	
Canadian Pain Society. CPS Meeting: Edmonton, AB, Canada.	2006	
Canadian Pain Society. CPS Meeting: Halifax, NS, Canada.	2005	
The University of Western Ontario. UWO Research Pain Day.	2004	
Regional Anesthesia and Pain Medicine Conference: Toronto, ON, C		
McMaster University. McMaster University Pain Symposium.	2004	4
Joint Canadian and American Pain Societies, Joint CPS/APS Conference	ence:	
Vancouver, BC, Canada.	2004	4
6th Annual Pain and Chemical Dependency Workshop: New York, US	SA. 2004	4

2015

2015



PubMed Computerized Literature Search Workshop. 2001
Canadian Medical Association. CMA Leadership Workshop for Medical Women:
Toronto, ON, Canada. 1998
The University of Western Ontario. Improving Your Vocal and Physical

Expressiveness as a Lecturer. A mini-course sponsored by the Educational Development Office, Instructor Mary Dow.

1997

### ADMINISTRATIVE ACTIVITIES

### **Current Memberships**

- American Academy of Pain Management, Diplomate
- Canadian Academy of Pain Management
- Ontario Medical Association, Section on Chronic Pain (Past Executive Member, 2008-10)
- Canadian Pain Society (Past Executive Board Member 2005-10)
- International Association for the Study of Pain
- Canadian Anesthesiologists Society (Past member of Association of Canadian University Departments of Anesthesia ACUDA 1993-2001)
- Canadian Pain Coalition (Past Board Member 2007-09)
- Association of Directors of University-Affiliated Pain Clinics of Canada (Founding Member, Past Chair 2004-2010))
- Lawson Research Institute (Invited member), London, Ontario University of Toronto Centre for the Study of Pain (Invited member)
- Neuropathic Pain Special Interest Group (National Organization affiliated with Can Pain Society)

### **Past Professional Associations**

•	Invited Member, Canadian Arthritis Network	2003 - 2010
•	Appointed Member, Association of Canadian Universities Depar	tments of
	Anesthesia (ACUDA)	1993 - 2001
•	Member, American Society of Anesthesiologists	1992 - 2010
•	Member, Society of Obstetric Anesthesia and Perinatology	1984 - 2009

#### Peer Review Activities

•	University of Western Ontario, Peer Assessment for Promotion	2015
•	Invited External Reviewer for Hamilton Health Sciences Chronic Pain	
	Program	2013
•	Participation in Dept of Physical Medicine and Rehabilitation External r	eview

University of Montreal. Peer assessment for Promotion

University of Western Ontario. Peer assessment for Promotion

Participation in Dept of Physical Medicine and Rehabilitation External review
 2011

 Expert Witness for Discipline Hearing, College of Physicians and Surgeons of Ontario

•	CPSO Physician Assessor (appoin	ted) 2005	5 - 2010

•	University of Toronto, Peer assessment for promotion to Professor	2002
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University of Western Ontario, Peer Assessment for promotion
 University of Toronto, Peer Assessment for promotion.
 2000

 University of Western Ontario, Internal University Reviewer for Pediatric Critical Care Program. London, Ontario



•	Consultant for Canadian Medical Protective Association (CMPA)  Peer Assessment for promotion to Professor at University of Ottawa. Ottawa, Ontario  Journal Reviewer								
•	Anesthesia and Analgesia Guest Reviewer Canadian Journal of Anesthesia Guest reviewer Canadian Journal of Anesthesia Editorial Board Pain Guest Reviewer	2015 2015 2009 - 2014 2013							
•	Pain Research & Management (2-3 reviews/yr) Guest Reviewer Clinical Journal of Pain Guest Reviewer Canadian Family Physician Guest Reviewer Canadian Journal of Anesthesia Guest Reviewer Pain Research & Management Editorial Board.	2002 - 2015 2011 2011 1991 - 2009 2004 - 2008							
•	Complementary and Alternative Medicine Online Journal Editorial  Journal of the Society of Obstetrics and Gynecology of Canada.  Journal of the Society of Obstetrics and Gynecology of Canada.  Journal of Neurosurgical Anesthesiology.	2004 - 2006 2004 2000 1995							
	Grant Reviewing Roles PSI Foundation Grant Reviewer Review of Dr Diane Gromala for Canada Research Chair Tier 2 British Oxygen Chair Research Grant, National Institute of Acade Anesthesia Grant Review Population Health Grants, Canadian Institutes of Health Research	2011							
•	PSI Foundation Grant Reviewer PSI Foundation Grant Reviewer PSI Foundation Grant Reviewer PSI Foundation Grant Reviewer	2010 2009 2005 2004 1996							
Books Reviewed  MacIntyre P, Ready B. Acute Pain Management: A Practical Guide. 2nd ed. London: W.B. Saunders; Reviewer 2001									
Adn •	ninistrative Roles Member, Pain Medicine Examination Committee, Royal College Physicians and	of							
•	•	2011-2015 Surgeons of 2010 - 2012 G).							
•	Chair, Task Force for the Royal College Accreditation of Pain Me Subspecialty Executive Member, Canadian Pain Society	2008 - 2010 edicine as a 2006 - 2010 2005 - 2010							



 Invited Member, Canadian Pain Society Task Force on Service delivery (Mandate-to plan the National Pain Summit meeting of April, 2012)

2010 - 2012

- Chair, Association of Directors of University-Affiliated Pain Clinics of Canada 2004 - 2010
- Executive Member, Canadian Pain Coalition
   2004 2008
- Vice-President, Canadian Anesthesiologists' Society Section on Chronic Pain
- Provincial 2001 2003
- Invited Member, Ontario Benefits, Drug Program (OBDP) Pain Medication Review
- Subcommittee 2012 2014
- Invited member, OMA/MOHLTC Working Group in Chronic Pain-The mandate of this committee was to create a blueprint for chronic pain services in Ontario covering primary care, secondary community centers and tertiary multidisciplinary clinics.
- Elected Member of Executive: Ontario Medical Section of Chronic Pain Physicians.
   2008 - 2010
- Physician Practice Assessor, College of Physicians and Surgeons of Ontario.
   2005 2010
- OMA Subcommittee: Guidelines for Continuous Infusion Epidural Analgesia (appointed member)

### **University of Western Ontario**

- Course Lead, Portfolio, Year 3, Schulich School of Medicine
   2015 2016
- Course Co-Leader with Dr Michaeal Sanatani, Portfolio Year 1, Schulich School of Medicine
   2014 - 2015
  - Examiners' Board, PhD Candidate, John Robertson, 2012
- Scientific Advisory Board of the University of Western Ontario
   Interdisciplinary Pain Program
   2005 2014
- Appointed Member, Department of Anesthesia Academic Affairs Committee 2002 - 2004
- Appointed Member, Department of Anesthesia Academic Affairs Committee 1999 - 2000
- Member, University and Hospital Selection Committees for Departmental Chair of
- Anesthesia 1999 Present
- Invited Member, UWO Complementary & Alternative Medicine Network
   2005 2008
- Chair, Scientific Advisory Board of the University of Western Ontario
- Interdisciplinary Pain Program
   2001 2005
- Member, Selection Committee for Canada Research Chairs Tier and Tier 2 2003 - 2004
- Member, Selection Committee for Chair of Anesthesiology Department 1999 - 2001
- Member, Selection Committee for Chair of Otolaryngology Department. 1995
- Member, Selection Committee for Chair of Obstetrics and Gynecology 1995



1993 - 1996

## **University of Toronto**

 External reviewer, MSc Clinical Sciences Thesis, "Chronic Pain, Opioids and Ovarian Hormones." Candidate, Ms. Samah Hassan, Collaborative Graduate Program in Women's Health, University of Toronto

### St Joseph's Health Care

- Member, Chronic Disease Management Project, Physician Leaders Group 2013
- Chair, Strategic Planning Process for the SJHC Pain Management Program 2012

•	Cha	ir, Pair	n Clinic	Advisory	Committ	ee, SJH0	2		2002 -	2015
								 _		

- Invited Member, Board of Directors, St Joseph's Health Care
   Chair Grosvenor Site Medication Committee
   2002 2004
   2001 2003
- Chair, Grosvenor Site Medication Committee
   Member, Obstetric Anesthesia Strategic Planning Committee
   2001 2003
   2006 2007
- Member, Obstetric Anesthesia Strategic Planning Committee
   Member. Pharmacy and Therapeutics Committee
   1998 2000
- Member, Functional Planning Committee for Low-Risk Birthing Centre
- Member, City-wide Midwifery Task Force
  1998 2000
  1998 2000
- Member, Obstetric Anaesthesia Interest Group, St Joseph's Health Care
   1998 2000
- Member, Maternal Perinatal Health Citywide Steering Task Force1998 2001
- Member, City-wide Pediatric Anaesthesia Interest Group
   1997 2000
- Member, Obstetrical/Perinatal Task Team Obstetrics/Perinatal Working Group
   1997 - 2002
- Member, Low-Risk Obstetrical Care Advisory Committee
   1994 2000
- Member, Labour/Birthing Room Construction Planning Committee, SJHC
- Member, Perinatal Advisory Committee, SJHC
   1991 1997
- Chair, Introduction of Epidural Infusions for Labour Analgesia into Clinical Practice, SJHC
- Chair, Departmental Risk Management Committee
   1991 1994
- Chair, Introduction of Epi-Morph for Postoperative C-section Pain into Clinical Practice
- Member, Department Subcommittee for Academic Development 1989 1995
- Member, Hospital Perinatal Mortality Committee 1989 1992
- Member, Hospital Search Committee for Chief of Department of Anesthesia,
   Lawson Health Research Institute and Parkwood Hospital
   1989 1991
- Invited Member, Rehabilitation and Geriatric Care Committee Toronto General Hospital 2002 - 2005
- Member, Research Ethics Committee
   1986 1987

# RESEARCH AND SCHOLARLY ACTIVITIES

#### Peer-reviewed Grants

 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 Anesthesiology and Perioperative Medicine \$10,000



- Co-Investigator, Near Infra-red Spectroscopic Measurement of Tissue Oxygen Saturation and the Vascular Occlusion Test in CRPS. Pl: Dr Geoff Bellingham. AHSC AFP Innovation Fund \$115,540
   201
- Faculty Supervisor: Dr Raj Manikandan. Plasma concentrations of ketamine and norketamine in patients using topical application of 10% ketamine for neuropathic pain. Earl Russell Traineee Grant. \$10,000
- Faculty Co-Supervisor with Dr Phil Jones. The effect of a perioperative smoking cessation program on rates of smoking cessation/reduction and perioperative complications: A randomized clinical trial. Principal Investigator Dr Philip Jones. Dept of Anesthesia Internal Academic Development Fund \$10,000
- Co-Investigator, Investigating the changes in neural activity caused by chronic pain in patients with fibromyalgia PI: Keith St Lawrence. Academic Development Fund UWO, \$8400
- Co-Investigator, Identification of physical and psychosocial predictors of chronic pain in children and adolescents: a first step towards prevention.
   Canadian Institutes of Health Research (CIHR) Population and Public Health, \$99,983
- Co-Investigator, Combination Ultra Low Dose Naloxone Infusion and Oral Tramacet for postoperative pain management in elderly patients undergoing joint replacement surgery: a prospective randomized, controlled trial. Earl Russell Pain Program Trainee Award, \$ 10,000
- Principal Investigator, Outcomes and Side effects of Lidocaine Infusions for Neuropathic Pain in Outpatients. Summer Research Training Program, UWO. \$ 10.000
   2008 - 2009
- Co-Investigator, Dr RA Gordon Patient Safety Award, Post-Dural Puncture Headache Clinical Trials Group.PI: Dr Pamela Angle \$40,000 2007 - 2009
- Co-Investigator, Project: The Effect of the Combined Use of Naloxone Infusion and Oral Tramacet on Post-Operative Analgesia in Elderly Patients Undergoing Joint Replacement Surgery. PI: Imasogie N, Lawson Health Research Institute, \$15,000
- Co-Investigator, Neuroimaging of lidocaine-induced analgesia in complex regional pain syndrome. Dr Collin Clarke, Earl Russell Pain Program Trainee Research Award, \$5,000
- Adjudicating Committee Member, Post-Dural Puncture Headache Clinical Trials Group. Pl: Dr Pamela Angle, Physician Services Inc Foundation, \$149,500
   2007 - 2009
- Co-Investigator, Neuroimaging of lidocaine-induced analgesia in complex regional pain syndrome. Dr Collin Clarke ,CAS/Vitaid-LMA Residents' Research Award. Canadian Anesthesiologists' Society, \$5,000
- Co-Investigator, Local anesthesia and chronic pain relief: Is procaine a useful drug? Dept of Anesthesia Academic Development Fund, \$10,0002006 - 2008
- Co-Investigator, Methadone and Opioid-related osteoporosis (MORO) Pilot study. Dept of Endocrinology Academic Fund, \$2,500
   2005 - 2007
- Co-Investigator, Faculty Supervisor, Dr Geoff Bellingham, PGY5 The use of intra¬operative low-dose ketamine in chronic pain patients undergoing laparotomy.
  - CAS/Vitaid-LMA Residents' Research Award. Canadian Anesthesiologists' Society, \$5,000 2005



- Co-Investigator, Faculty Supervisor: Dr Kate Ower, Fellow Chronic Pain Management Needs for and Access to Medical Information among Patients Attending Chronic Pain Clinic. Earl Russell Funds, \$3,000
- Principal Applicant, AMOSO Opportunities Fund Award: Medical leadership for St. Joseph's Health Care Pain Clinic. Academic Medical Organization of Southwestern Ontario, \$60,000
- Co-Investigator, Prospective Study of the Management of Chronic Neuropathic Non-Cancer Pain. Canadian Pain Trials Network, Canadian Foundation for Innovation, Principal Investigator: Dr Dwight Moulin, Total Funding \$1,991,059
   2004 - 2006
- Co-Investigator, The effects of a weak specific pulsed low frequency magnetic fields on pain perception in a chronic pain population. PI: Dr. Alex Thomas, Earl Russell Chair Funds and Lawson Research Health Institute, \$15,000
- Principal Applicant, AMOSO Opportunities Fund Award: UWO Interdisciplinary Pain Program Leadership. Academic Medical Organization of Southwestern Ontario, \$75,000
- Co-Investigator, Disentangling the placebo effect: The relative roles of pharmacology and response expectancies in pain and sleep. PI: Leora Swartzman, Dr. Gilles Lavigne, CIHR - New Emerging Team Grant, Total Funding:\$1,200,000
   2003 - 2008
- Co-Investigator, Psychological Factors Predicting Adjustment to Persistent Pain. PI: Dr. Allan Shapiro, Earl Russell Chair Funds and UWO Summer Research Training Program, \$6,500
   2002 - 2005
- Co-Investigator, The impact of psychological factors on the neural processing of nociception in a chronic pain syndrome. Pls: Dr Leora Swartzmann, Dr Gilles Lavigne Placebo NET\$, 35,000
- Co-Investigator, A Phase 2 Multi-centre Randomized Double-Blind Placebo Controlled Crossover Study of CJC 1008, a Long-Acting Parenteral Opioid Analgesic in the Treatment of Post-herpetic Neuralgia. Pl: Dr. Dwight Moulin, \$ 40,000
- Principal Site Investigator, A Phase 2 Multi-centre Randomized, Double-Blind Placebo Study of CJC 1008, a Long-Acting Parenteral Opioid analgesic in the Treatment of Surgical Pain Following Total Abdominal Hysterectomy. \$112,500
- Principal Investigator, Comparison of two anaesthesia delivery systems to demonstrate cost savings in isoflurane consumption during procedures of shorter duration. St. Joseph's Health Care, \$ 5,000
- Principal Investigator, The use of a Panasonic hand-held computer to record pain intensity in Second-Stage labour. St. Joseph's Health Care Foundation, \$ 3,000
- Principal Investigator, The efficacy of Indomethacin as a postoperative analgesic for outpatient gynecologic surgery. St. Joseph's Health Care Foundation, \$, 2,000

## Industry

 Co-Investigator, Multicentre Neuropathic Pain Database Study: Long-term outcome of the pharmacologic management of neuropathic pain. Genetics



- and Economic Burden of Neuropathic Pain. Pfizer Canada, Funded, \$853,088 2007 2012
- Site Investigator, Multicentre RCT-Efficacy and Safety of Pregabalin in the Treatment of Subjects with Neuropathic Pain Associated with Lumbosacral Radiculopathy. Pfizer Canada Inc. Funded, \$74,408
- Co-Investigator, A randomized Placebo-controlled Trial of the Efficacy and Safety of Pregabalin in the Treatment of Subjects with Peripheral Neuropathic Pain. Pl: Dr. Dwight Moulin, Pfizer Canada Inc. \$84,000 2005 - 2007
- Principal Investigator, Comparison of the incidence and severity of post-dural puncture headache with the Epi Sprotte and Tuohy needles. Pajunk Inc \$10,300
- Principal Investigator, Anesthesia for intranasal surgery: A comparison between tracheal intubation and the flexible reinforced laryngeal mask.
   Gensia Inc. \$4.000
- Site Investigator, Epidural Anesthesia for Cesarean Section: A double-blind comparison of ropivacaine 7.5 mg/ml and bupivacaine 5mg/ml. Astra, \$24,000
- Principal Investigator, Incidence of epidural vein cannulation with the flexible Arrow epidural catheter. Arrow International, \$1,600
- Principal Investigator, Effect of Midazolam premedication on patient recovery characteristics after pediatric tonsillectomy. Hoffman-Laroche, \$5,000 1990
- Principal Investigator, Temperature changes and shivering after epidural anesthesia for Cesarean Section. Mon-A-Therm. \$5.000

### **Industry Consulting Roles:**

- Physician Assessor for Centers for Pain Management (CPM)
   2006 2009
- Consultant for Purdue Pharmaceuticals, Advancing the Continuum of Pain Management.
- Scientific Consultant, Fralex Therapeutics Management Board. 2005 2008
- Pfizer Canada, Member, Multidisciplinary Consultant's Forum on Neuropathic Pain Management.
- Media Relations Consultant for Merck-Frosst re: Post Therapeutic Neuralgia Vaccine.
- Member, Janssen-Ortho Advisory Board, "The Future of Pain Management".
   2005
- Pfizer International, Scientific Consultant for International Coalition on Neuropathic Pain. Cannes, France
- Scientific Advisor for Janssen-Ortho Inc., Opioid Management Board. 2003

2003

- Scientific Consultant for Janssen Ortho Inc., at conference in Enhancing Chronic Pain Management with Opioids. Whistler, British Columbia 2003
- Invited member of Scientific Advisory Board for ConjuChem. To advise on development of a novel analgesic for acute and chronic pain. Scientific Adviser in design and implementation of Phase II trials for CJC 1008 2001
- External Consultant for Oshawa General Hospital to advise on optimal site for cesarean sections. (\$15,000 report). Oshawa, Ontario



### Other Contributions

- Creation of Pain Medicine Website; March 2015; <a href="http://fhs.mcmaster.ca/pain-medicine-residency/index.html">http://fhs.mcmaster.ca/pain-medicine-residency/index.html</a>
   2015
- Nominator: Cathy Lowery RN, SJHC Clinical Excellence in Direct Nursing Care
- Participation in Dept. of Anesthesia External Review 2010
- Nominator: Cathy Rohfritsch RN, Awarded Excellence in Direct Nursing Care.
- Complementary and Alternative Medicine Curriculum Planning Forum in Medical Education.
- Ministry of Health and Long-term Care Drug Reviewer for Drug Quality and Therapeutics Committee.
- Invited to be Director of Obstetric Anaesthesia at University Health Network, by Dr. David Bevan, Anaesthetist-in-Chief. Toronto, Ontario 2001

# HONOURS AND AWARDS

- Gold Medal. Canadian Anesthesiologists' Society 2013. In recognition of outstanding contributions to anesthesiology and leadership in advancing the area of chronic pain management
- CAS/LMA Vitaid Residents' Research Award Faculty Supervisor, Primary Applicant: Dr Collin Clarke, Neuroimaging of lidocaine-induced analgesia in complex regional pain syndrome.. Canadian Anesthesiologists' Society, \$5,000
- London Hospitals Long Service Award, 20 Years Service
- AMOSO Opportunity Fund Award "Medical Leadership for St Joseph's Health Care Pain Clinic" \$60,000
   2005 - 2008
- AMOSO Opportunity Fund Award "The UWO Interdisciplinary Pain Program Leadership Fund"\$75,000
   2005 - 2008
- CAS/LMA Vitaid Resident Research Award . Primary Applicant Dr Geoff Bellingham, Faculty Supervisor. The use of intra-operative low-dose ketamine in chronic pain patients undergoing laparotomy. \$5,000
- Travel Award. Travel award to attend IASP World Congress on Pain in Sydney, Australia: awarded by Purdue Pharma through written competition. \$5000
- Retraining Award for Chronic Pain Management. Faculty of Medicine Mini-Fellowship Fund. University of Western Ontario, Faculty of Medicine, London, Ontario, Canada. \$3,000
- Retraining in Chronic Pain Management Award, Royal College of Physicians and Surgeons of Canada, Ontario, Canada Funded \$3,000.
- and Surgeons of Canada, Ontario, Canada Funded \$3,000.
   St. Joseph's Health Care Physician Retraining Award. \$12,500.
- Best Clinical Abstract. 1997 Faculty Supervisor,: Dr Brian Banwell ,Midwest Anesthesia Residents Conference, Canada
- CAS Resident Research Competition. First Prize: Indomethacin as a
  postoperative analgesic for total hip arthroplasty. Faculty Supervisor: Dr Ron
  Segstro, Canadian Anesthesiologist's Society, Ontario, Canada
  1990
- CAS Scientific Exhibit. First Prize: Hypothermia in the Operating Room.
   Canadian Anesthesiologist's Society, Ontario, Canada
   1984



 Thomas Donald Hammell Memorial Award in Anaesthesia. Awarded to an Anaesthesia Resident at the University of Toronto who demonstrates allround excellence. University of Toronto, Toronto, Ontario, Canada 1977

# **TEACHING AWARDS**

- Fellow Teacher of the Year Award, Level: Postgraduate, Dept of Anesthesia 2005 - 2006
- University Students' Council Teaching Honour Roll, Level: Undergraduate, Awarded for undergraduate medical student teaching.
- Level: Postgraduate, Teaching ability ranked in the first quartile most years according to resident city-wide evaluations of anesthesia faculty. 2001 - 2015
- Level: Postgraduate, Ranked as 3rd best overall teacher in city in faculty evaluations by residents.

# PEER REVIEWED PUBLICATIONS

#### Journal Articles

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### NON-PEER REVIEWED PUBLICATIONS

### **Journal Articles**

- Morley-Forster PK. Acute pain management in the chronic pain patient. Pain Care. 2007;6:3-8. Principal Author
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- Singh S, Morley-Forster PK, Kennedy B. Anaesthetic management of a parturient with Osler- Weber-Rendu disease complicated by cerebral and pulmonary vascular malformations. 2000 Jun; 12th World Congress of Anaesthesiologists: Montreal, QC, Canada. P3.2.11. Co-Principal Author
- Shamsah M, Singh S, Morley-Forster PK, Butler R. Effect of speed of injection on the spread of spinal anaesthesia with hyperbaric bupivacaine in parturients. 2000 Jun; 12th World Congress of Anaesthesiologists: Montreal, QC, Canada. Coauthor
- Angle PJ, Halpern SH, Morley-Forster PK, Littleford JA, Gnanendran MD, Owen H, et al. Post-epidural back pain in the parturient--a comparison of the epidural Sprotte vs. Tuohy needle. Anesthesiology: SOAP Abstracts. 2000:A62. Coauthor
- Armstrong K, Kennedy B, Watson JT, Morley-Forster PK, Yee I, Butler R. The side effect profile of sufentanil epidural analgesia with and without epinephrine. Anesthesiology. 1999 Apr;90 Suppl 1A:A83. Coauthor
- Writer D, Muir H, Shukla R, Nunn R, Scovil J, Morley-Forster PK, et al.
   Epidural anaesthesia for caesarean section: double-blind comparison of



- ropivacaine, 7.5 mg/ml, and bupivacaine 5 mg/ml. Can J Anaesth. 1998 May;45(5.2):A61-A. Co-Principal Author
- Morley-Forster PK, Reid WD, MacKinnon CJ. A comparison of patientcontrolled analgesia (PCA) fentanyl and PCA alfentanil for labour analgesia. Anesthesiology: SOAP Abstracts. 1997. Principal Author
- Webster AC, Morley-Forster PK, Watson J, Dain S, Jansen V. Evaluation of the flexible reinforced laryngeal mask airway (FRLMA) for intranasal surgery. Anaesthesiology: ASA Abstracts. 1997 Sept;87 Suppl 3A:A30. Co-Principal Author
- Webster AC, McKishnie JD, Morley-Forster PK. Lumbar epidural anaesthesia for inguinal herniorrhaphy in conscious ex-premature neonates. Ped Anesth. 1996. Coauthor
- Dain SL, Webster AC, Morley-Forster PK, Ruby R, Weberpals J, Cook MJ. Propofol for insertion of the laryngeal mask airway for short ENT procedures in children. Anesth Analg. 1996 Mar;82:S83. Coauthor
- Morley-Forster PK, Smith A, McIndoe M, Hutchinson J. Stand By Me: Implementation of a Parent Present at Induction Program. 1996; Association for the Care of Children's Health (ACCH) Conference: Albuquerque, NM, USA. Principal Author
- Banwell B, Morley-Forster PK, Krause R, Dain SL. Decreased incidence of epidural vein cannulation and transient paresthesiae in parturients with the Arrow (FlexTip Plus) catheter. Anaesthesiology: ASA Abstracts. 1996 Sept:85 Suppl 3A:A900.(Resident Supervisor for Dr B Banwell)
- Ganapathy S, Morley-Forster PK, Chess DG, Lampe M. Preemptive analgesia and interscalene block. Anaesthesiology: ASA Abstracts. 1995 Sept; 83 Suppl 3A:A783. Co-Principal Author
- Ruby RRF, Webster AC, Morley-Forster PK, Dain SL. The laryngeal mask airway in pediatric otolaryngological surgery. J Otolaryngology. 1995;24(5):288-91. Coauthor
- Toll MO, Morley-Forster PK. Effect of labor room ventilation design on ambient nitrous oxide levels. Anesthesiology: ASA Abstracts. 1994 Sept;81 Suppl 3A:A559. Co-Principal Author
- McAllister JD, Morley-Forster PK, White AK, Taylor MD, Vandenberghe HM, Knoppert D. Recovery after oral midazolam premedication in children: intravenous vs. inhalation induction. Can J Anaesth. 1992 May;39(5.2):A48. (Resident Supervisor for Dr J McAllister)Co-Principal Author
- Newton P, Morley-Forster PK, Cooke MJ. Intramuscular ketorolac and rectal indomethacin are equally efficacious for the relief of minor post-operative pain. Anesthesiology: ASA Abstracts. 1992 Sept;77 Suppl 3A:A14.(Resident Supervisor for Dr P Newton) Co-Principal Author
- Dobkowski WB, Prato FS, Shannon NA, Drost DJ, Arya B, Morley-Forster PK, et al. Effects of magnetic resonance imaging at 1.5 T on Fentanyl induced respiratory depression. Can J Anaesth. 1992 May;39(5.2):A55.
   Coauthor
- Segstro R, Morley-Forster PK, Lu G. The efficacy of indomethacin as a
  postoperative analgesic following total hip arthroplasty. Can J Anaesth. 1990
  May;37(4.2):S41.(Resident Supervisor for Dr Ron Segstro-Awarded First
  Prize, CAS Resident Competition)



- Chan VWS, Vosu HA, Morley-Forster PK. Shivering following epidural anesthesia for cesarean section. 1987; 29th Annual Meeting of SOAP. (Resident Supervisor for Dr V Chan)
- Wellwood M, Kalman P, Morley-Forster PK, Teasdale SJ, Cain J, Walker P, et al. A comparison of anesthetic techniques for aortic reconstructive surgery. Anesthesiology: ASA Abstracts. 1984 Sept;61 Suppl 3A:A66. Coauthor

# PRESENTATIONS/LECTURES

### **Invited Lectures**

- Inheriting and accepting patients with pain. Owen Sound Family Health Team. Owen Sound, ON
   2015 April 21
- Inheriting and accepting patients with pain. The Middlesex County Pain Management Update. London, ON 2015 April 15
- "Medical Marijuana/Methadone for Pain: What Do I Need to Know?" 59th Annual Ontario Anesthesia Meeting. September 18-21, 2014
- "Chronic Pelvic Pain-Emerging Views" Back and Pain Center, Ann Arbor, MI.
   May 20, 2014.
- "National Guidelines for Chronic Pain The Patient Experience". Pain Management Program, St. Joseph's Health Care, London, ON. February 8, 2014.
- "Methadone and Marijuana for Chronic Pain: What the anesthesiologist needs to know" Ontario Section of Anesthesiology, Annual Mtg September 24-26.2014. Toronto
- Pain Medicine: An Update Canadian Society of Anesthesiology Chronic Pain Section Meeting. St John June 15-19, 2014.
- "The Biology of Chronic Pain" Effective Pain Self-Management Session, Pain Management Program, St. Joseph's Health Care, London. March 28, 2014; July 11, 2014; November 14, 2014
- Pain Medicine: A New Royal College Subspecialty Program. Visiting Professor to the Dept of Anesthesia, Dalhousie University, November 13, 2013, Halifax, Nova Scotia.
- Pelvic Pain: Emerging View, New Treatment . September, 2013 Hugh Allen Day Dept of Obstetrics and Gynecology , London Health Sciences Centre 2013
- Non-opioid and adjuvant pharmacotherapy in chronic pain. Special interest elective In chronic non-cancer pain for Family Medicine residents. June19, London
- Chronic Pelvic Pain The conversion from Visceral to Neuropathic Pain.
   Invited lecture to University of Michigan Pain Fellows, May 12,2013 Ann
   Arbor, Michigan
- Assessment and Management of Chronic Pain Parts 1 and 2 (4 hours).
   Anesthesiology Resident Core Curriculum Half Day May 1, 2013, London 2013
- Chronic Pain Assessment and management in the Addicted Patient: Parts 1 and 2.(Total 4 hours)Meds IV, Western University, Integration, Consolidation, and Enrichment (I.C.E.)Course in Pain Medicine. April 4 and April 11, Schulich School of Medicine, London.



- The Biology of Persisting Pain. St Joseph's Pain Program Patient Education Day . January 11, 2013, London
- Update on Pharmacotherapy in Chronic Pain. London Family Health Care Team. November, 2012. Beaverbrook Family Health Care Team. 2012
- Neurobiology of Chronic Pain: Factors influencing Transition from Acute to Chronic Pain, Conference: A Balanced Approach to Pain Management March 23-25,2012. London, Ontario
- How to Utilize NOUGG Guidelines in Your Practice. Conference: A Balanced Approach to Pain Management March 23-25,2012, London, Ontario 2012
- Chronic Abdominal and Pelvic Pain. Conference: A Balanced Approach to Pain Management March 23-25,2012, London, Ontario 2012
- What is Chronic Pain? Patient Education Day Theme: Effective Pain Self-Management. June 8,2012, St Joseph's Health Centre Invited Speaker 2012
- Intravenous Lidocaine infusion for chronic neuropathic pain, OMA Section on Chronic Pain ,Annual Meeting, Toronto. May 4,2012 Invited Speaker 2012
- Annual Workshop on Neuropathic Pain for Family Physicians. St Josephs Pain Clinic Approved for CME By UWO. Invited Speaker 2011 No
- Chair, London Smoking Cessation Group, Organized nine groups within London to collaborate on increasing accessibility to Smoking Cessation Programs.

  2011 Oct
- Neurophysiology of Pain. Physical Medicine and Rehabilitation Resident Seminar Leader 2011 Sep
- Assessment and Management of the Chronic Pain Patient. Anesthesia Resident, Seminar Leader
   2011 Aug
- Canadian Interventional Pain Course. Introduction of Pain Fellowship by the Royal College. McMaster University, Hamilton Invited Speaker 2011 Apr
- Grand Rounds, The Department of Anesthesiology, Ottawa Hospital, The New Royal College Subspecialty Program of Pain Medicine. Ottawa, Ontario, Canada. Invited Speaker

  2011 Feb
- Annual Workshop on Neuropathic Pain for Family Physicians.St Josephs
  Pain Clinic Approved for CME By UWO Invited Speaker
  2010 Dec
- St. Joseph's Hospital, Smoking Cessation Counseling in the Preadmission Clinic. Perioperative Interdisciplinary Rounds. London, Ontario, Canada, Invited Speaker
- McMaster University Health Sciences, Fourth Annual Interventional Pain Management Conference, Methadone for Chronic Pain. Hamilton, Ontario, Canada, Invited Speaker
- Lawrence S Bloomberg Faculty of Nursing, University of Toronto, Workshop Chair To Produce a Consensus Statement on the Optimal Methods of Interprofessional Assessment at a conference on Moving the Pain Education Agenda Forward: Innovative Models. Toronto, Ontario, Canada, Workshop Chair
- The University Hospitals Coventry and Warwickshire NHS Trust, Dept of Anesthesia and Pain Management, Canadian Opioid Use Guidelines for Chronic Non-Cancer Pain. Visiting Professor
- Ambulatory Anesthesia Section Annual Meeting, Accuracy and Usefulness of Smokerlyzer device. Montreal, Quebec, Canada, Invited Speaker 2010 Jun



- 7th Annual Medicine Update in Psychiatry, Pain and its interface with the biopsychosocial realm. Regional Psychiatry Meeting, London, Ontario Invited Speaker
- Walkerton/Hanover Family Health Teams, Fibromyalgia: Thinking beyond the pain. (Consultant for Boehringer Ingelheim) Invited Speaker
   2010 Apr
- Annual Workshop on Neuropathic Pain for Family Physicians. St Joseph's Health Care Pain Clinic Approved for CME by UWO Invited Speaker
   2010 Apr
- 3rd Annual Anesthesia Conference in Kuwait, (delivered four lectures),
   Kuwait, Visiting Professor

  2009 Nov
- Hugh Allen Education Day, Diagnosis and Treatment of Chronic Pelvic Pain.
   Regional Meeting, Dept of Obstetrics and Gynecology. Invited Speaker
   2009 Oct
- OMA/CAS Section of Anesthesia Mtg, Perioperative Considerations in Chronic Pain. Regional Meeting .Invited Speaker
   2009 Oct
- Mexican College of Anesthesia, New Concepts in Complex Regional Pain Syndrome and Acute Pain Management in the Chronic Pain Patient (delivered two lectures). Visiting Professor
- Canadian Endocrine Update 2009, Chronic Opioid Therapy: Does it affect the endocrine system? London, Ontario, Canada, Invited Lecturer 2009 Apr
- Can Pain Society SIG Pain Refresher Course, Use of Topical Agents in Neuropathic Pain. Toronto, Ontario, Canada, Invited Lecturer 2009 Feb
- City-wide UWO Dept of Anesthesia Rounds, UH Auditorium D, Developments in Treatment of CRPS. London, Ontario, Canada, Invited Lecturer

  2009 Jan
- Annual Workshop on Neuropathic Pain for Family Physicians.St Jospeh's Health Care Pain Clinic. Approved for CME by UWO Invited Speaker 2009
- Centers for Pain Management Topical Compounds in the treatment of chronic pain. Invited Lecturer

  2008 Jun
- Annual Workshop on Neuropathic Pain for Family Physicians. St Joseph's Health Care Pain Clinic, Approved for CME by UWO .Invited Speaker 2008
- University of Western Ontario Interdisciplinary Pain Program Rounds, Topical Analgesics: An Idea Whose Time Has Come. Invited Lecturer 2007 Nov
- Breakfast and Learn Session, SJHC Pain Clinic Team, Intravenous Local Anesthetic Infusions for Chronic Neuropathic Pain. Invited Lecturer 2007 Nov
- Centers for Pain Management . Using the Needle Wisely and Well. Physician in-training seminar on interventional techniques in pain management office practice. Invited Lecturer
- Hand Therapists' Association of Southwestern Ontario, Complex Regional Pain Syndrome. Ontario, Canada, Invited Lecturer
   2007 Oct
- Pain Fair, Evening CME, Demystifying Pain for Family Physicians. Invited Lecturer
   2007 May
- Can Pain Society and Can Pain Coalition, Pain in the Older Person: A Public Forum sponsored by Can Pain Society and Can Pain Coalition to increase awareness of 2007-the Year of Pain in the Elderly. London, Ontario, Invited Lecturer
- Annual Workshop on Neuropathic Pain for Family Physicians. Invited Speaker



- Fibromyalgia Support Group, London Chapter, Fibromyalgia: Are we Making Any Progress? London, Ontario, Invited Lecturer
   2006 Sep
- AIM Family Practice Clinic, Opioids for chronic non-cancer pain. Do they cause more harm than good? London, Ontario, Invited Lecturer 2006 Jul
- McGill Centre for the Study of Pain, Hypogonadism in the chronic pain patient on opioid therapy. Visiting Professor
   2006 Feb
- Patient Education Forum, What Happens in a Pain Clinic? Living with Chronic Pain¬Helping You Move Forward. London, Ontario, Invited Lecturer 2005 Nov
- Endometriosis Support Network, Pain Management in Endometriosis.
   London, Ontario, Invited Speaker (Continued)
   2005 Nov
- Neuropathic Special Interest Group, Problems with Pilot Neuropathic Pain Database. Toronto, Ontario, Invited Lecturer
   2005 Nov
- The Relief of Pain: Resolving Ethical Issues (Organized speaker and presented one case for discussion). Invited Lecturer 2005 Jun
- Tillsonburg Family Physicians, Attitudes of Canadian Physicians towards
   Opioid¬Prescribing for Chronic Pain. Invited Lecturer
   2005 May 26
- Can Pain Society, Role of University-affiliated Pain Clinics in Advocating for Political Change. Panel Speaker
- Can Pain Society Neuropathic Pain Experts Panel, The State of Human Clinical Research in Neuropathic Pain. Panel Speaker
   2005 Apr
- Department of Psychiatry CME Day, Co-existing Pain and Addiction. Invited Lecturer
   2004 Oct 14
- Merck-Frosst Clinical Workshop, Acute Pain Management The Basics.
   Chatham, Ontario, Invited Lecturer

  2004 Sep
- Post Traumatic Stress Disorder Program, Concurrent Psychiatric Disorders with chronic pain. Invited Lecturer

  2004 Apr
- Department of Anesthesia, St Joseph Health Care: Placebo Response in Acute Postoperative Pain.Departmental Rounds
- Department of Medicine, St Josephs Health Care. SJHC Interdisciplinary
   Pain Program Vision for the Future .Invited Speaker

  2004
- Western Pain Day-In honor of Earl Russell, The Experience of Pain. London, Ontario, Keynote Speaker
   2003 Oct
- Interurban Pain Day Overview of UWO Pain Program: The Future. London, Ontario, Invited Lecturer
- Merck-Frosst Clinical Workshop, Overview of UWO Interdisciplinary Pain Program.London, Ontario, Invited Lecturer
   2003 Sep
- Merck-Frosst Clinical Workshop, NSAIDS for Post Operative Pain. London, Ontario, Invited Lecturer
   2003 Sep
- Ontario Peri-anaesthesia Nurses Association Meeting, Acute Post-op Pain Management Challenges in the Chronic Pain Patient. Toronto, Ontario,
- Canadian Anaesthesia Society Meeting, Problem Based Learning Seminar Pain Management in a patient with Ischemic Neuropathy. Victoria, British Columbia. Facilitator
- Departments of Anaesthesia & Surgery Grand Rounds, University of Western Ontario, Chronic Post-Surgical Pain. London, Ontario, Invited Lecturer 2002 Apr



- Lawson Health Research Institute Rehabilitation and Geriatric Care Research Day,
   2002
- Peripheral Opioid Analgesia: Mechanisms and Clinical Implications. London, Ontario, Keynote Address
   2001 Jun
- Canadian Anaesthesia Society Meeting, Problem-Based Learning Seminar-Fractured Humerus in a Patient with a Three Week Old Myocardial Infarction. Halifax, Nova Scotia, Facilitator
- Post-Anaesthetic Care Nursing Conference, Challenges in the PACU.
   London, Ontario, Invited Lecturer
   2001 Apr
- Midwives Provincial Teaching Program at McMaster Medical Centre, Epidural Analgesia in Labour. Hamilton, Ontario, Invited Lecturer 2000 Sep
- Wasser Pain Management Centre, Mt. Sinai Hospital, Chronic Post-Surgical Pain. Toronto, Ontario, Invited Lecturer
   2000 Jun
- Association for the Care of Children's Health, Stand By Me: Developing a
  Parent Present at Induction Program. Albuquerque, New Mexico, United
  States, Invited Lecturer
  2000 Jun
- Can. Anaesthesiology Society Meeting, Obstetrics and Pain Management Presentations. Calgary, Alberta, Session Moderator
   1999 Jun
- Midwives Provincial Teaching Program at McMaster Medical Centre, Epidural Analgesia in Labour. January and September, Hamilton, Ontario, Invited Lecturer
- Dept. of Neonatology, St. Joseph's Health Care, Use of the Laryngeal Mask Airway in Neonatal Resuscitation. Ontario, Invited Lecturer
- Midwives Provincial Teaching Program at McMaster Medical Centre, Epidural Analgesia in Labour. Hamilton, Ontario, Invited Lecturer
   1998 Jan
- Middlesex-London Public Health Nurses, Obstetric Analgesia Update.
   Ontario. Invited Lecturer 1998
- Kitchener Anaesthesiologists, Ropivacaine, From the Lab to Clinical Practice.
   Ontario, Invited Lecturer
- Anaesthesia and Nursing Staff at Hotel Dieu-Grace, Ropivacaine, From the Lab to Clinical Practice. Windsor, Ontario, Invited Lecturer
- St. Joseph's Health Care, Obstetric Analgesia Update. Departmental rounds 1998
- Can-Am Clinical Anaesthesia Conference, Obstetrical Anaesthesia Panel Discussant. Niagara-on-the-Lake, Ontario, Invited Lecturer
   1997 May
- Post-anaesthetic Care Unit Nursing Conference, Stand By Me (Implementation of a Peri¬operative Pediatric Support Program). London, Ontario, Invited Lecturer
- Midwives Provincial Teaching Program at McMaster Medical Centre, Epidural Analgesia in Labour. Hamilton, Ontario, Invited Lecturer
   1997 Jan
- Ontario Medical Association Section of Anesthesia Meeting, What is new in Obstetric Anaesthesia? Niagara-on-the-Lake, Ontario, Invited Lecturer 1997
- Midwives Provincial Teaching Program at McMaster Medical Centre, Epidural Analgesia in Labour. Hamilton, Ontario, Invited Lecturer
   1996 Jan
- Neonatal Resuscitation Workshop-Ontario Heart and Stroke Association, The Use of the Laryngeal Mask Airway in Resuscitation. Instructor
   1995 Oct
- Department of Neonatology St. Joseph's Health Care, Update on Neonatal Anaesthesia. Invited Speaker (Continued)

1989



•	Department of Anaesthesia, St. Michael's Hospital, NSAIDS for	
	Postoperative Pain Management. Toronto, Ontario, Invited Lecturer	1993

- Ontario Medical Association, Section of Anaesthesia Annual Meeting,
   Delayed Complications of Epidural Anaesthesia. Invited Lecturer
- Southwestern Ontario Regional Anaesthesia Meeting, Hypothermia and Trauma. Invited Lecturer
- Southwestern Ontario Pediatric Dentists Study Club, Midazolam Sedation in Pediatric Dental Procedures. Invited Lecturer
- Telemedicine, The Role of Midazolam in Pediatric Premedication. Invited Lecturer
   1992
- Family Medicine Obstetric Update 1992, The Use of Entonox for Labour and Delivery. Invited Lecturer
- Can-Am Clinical Anaesthesia Conference, Unintentional Hypothermia in the Operating Room. Invited Lecturer
- Case Presentation and Discussion: Intra-operative Hypothermia during spinal proceedure. Orthopaedic Grand Rounds
- Anaesthetic Practice 1990. University of Toronto, Unintentional Hypothermia in the Operating Room. Ontario, Invited Lecturer
- Southwestern Ontario Anaesthetists Society Annual Fall Meeting, Anaesthetic Management of Obstetrical Emergencies. Ontario, Invited Lecturer
- Telemedicine, Neonatal Resuscitation. Invited Lecturer 1983

# **TEACHING ACTIVITIES**

#### **Program Teaching**

# **Postgraduate Medical Education Admin**

- Royal College of Physicians &Surgeons Pain Medicine Examination Committee
   2015 - Present
- Royal College of Physician & Surgeons Anesthesiology Written Test Committee Member (MCQ).
   1999 - 2004
- Resident Coordinator of Obstetric Anesthesia for University of Western Ontario Residency Program.
   1989 - 2000

# **Continuing Medical Education Admin**

- Co-organizer with Dr Shelley McKellar. Invited Goodman Series Lecturer, Prof Joanna Bourke. Three interdisciplinary lectures, Theme: History of Pain. Target audience: Depts of History and Schulich School of Medicine, Western University
- Co-organizer with Dr Ian Herrick. Invited speaker, Dr Cathy Smyth, Associate Professor of Anesthesia, U of Ottawa and Gini Jarvis RN, to implement interventional management of cancer pain at London Regional Cancer Care. Audience: Dept of Anesthesiology and Perioperative Medicine City-wide Rounds
- Organized three-day visit of Dr. Allen Finley, Professor of Anaesthesia, to address assessment and management of pediatric pain in London.



# **Undergraduate Medical Education**

# **Course Lead**

Year 3, Professional Portfolio Course, Schulich School of Medicine
 2015 - 2016

#### Instructor

Obstetric Anesthesia and Analgesia Clerkship Seminar (6 times per year).
 1988 - 1994

#### Interviewer - Medical School

 Interviewer for the Admissions Committee for the University of Western Ontario Medical School.
 1996 - 2000

#### Examiner L.M.C.C., subsequently MCCQE Part II

- Medical Council of Canada Qualifying Examination Part 2 Examiner (MCCQE Part 2)
- Medical Council of Canada Qualifying Examination Part 2 Examiner (MCCQE Part 2)
- Part II. 2000
- Part II. 1993 1997

## Organizer - Major Undergraduate Medicine Course

 Worked with Dr. Dwight Moulin to prepare a selective course curriculum for fourth year medical students on Pain Mechanisms and Treatment. First offered February 2003.

#### Undergraduate teaching

- Portfolio Course Mentor, Year 3, Schulich School of Medicine. 2013 2014
- Pain Medicine, Integration, Consolidation, Enrichment Meds IV Course Lecturer Assessment and Management of Pain in the Addicted Patient 2010 - 2014
- Discovery Days in Health Sciences, Secondary school students in Southwestern Ontario. Panel Speaker

  2011
- Annual Lecture on Pain and its Management, Meds IV: Treatment of Chronic Pain Problems in the Emergency Department.
   2008 - 2012
- Pain and its Management in the New Millennium, Meds IV: Role of nerve blocks in diagnosis and treatment of chronic pain. Teaching Effectiveness: 6.4 / 7
   2003 - 2009
- Musculoskeletal System Lecturer for Meds II: Neural Blockade in The Management of Lumbar Spinal Pain.
   2003 - 2009
- Supervisor of Family Medicine residents on one-day rotation through Pain Clinic (4¬6/year).
   2003 - 2007
- Academic Half Day, Meds III: Assessment and Treatment of Chronic Pain.
   2004
- Academic Half Day: Assessment and treatment of Chronic Pain-Need for Multidisciplinary Approach, Meds I & Meds II.
- Preanesthetic Assessment Seminar (2 hr tutorial given 6 times per year to Clinical Clerks).
   1994 - 1998
- Examiner: Department of Anesthesia Annual Resident Oral Examination.

1988 - 1994



### **Postgraduate Medical Education**

- University of Western Ontario Anesthesia Department. Journal Club Organizer.
   1988 - 1992
- Research Coordinator of Anesthesia Residency Program for the University of Western Ontario.
   1993 - 2000

#### **Examiner - Practice Oral Exams**

- Practice Oral Exam Sessions with F.R.C.P. Candidates, Semi-Annual Resident Training Program.
   1983 - 2001
- Practice Oral Exam Sessions with F.R.C.P. Candidates, Semi-Annual Resident Training Program.
   1983 - 2001

#### **Anesthesia Core Residency Lecture Program**

- Faculty teaching Evaluation based on Canmeds roles compiled on August 29,2012 and October 2,2013 Very Good to Outstanding 2012 - 2013
- Assessment and Management of Chronic Pain Part I 2013 May 1
- Assessment and management of Chronic Pain , Part II
   2013 May 8
- Novel Analgesics in the Perioperative Period.
   2008
- Acute Post-operative Pain Management of the Chronic Pain Patient. 2008
- Fetal Anatomy and Physiology. 2006
  - Assessment & Treatment of Patients with Chronic Pain. (Teaching
- Effectiveness: 6.2/ 7) 2003 2013
- Acute postoperative Pain Management of the Chronic Pain patient.
- Fetal Anatomy and Physiology.
   2004
- Assessment & Treatment of Patients with Chronic Pain.
   2003
- Neuroaxial Anaesthesia for Surgery.
- Anaesthesia for C-section.
   2001
- Anaesthesia for Cesarean Section.
   2000
- Regional Anaesthesia in Obstetric and Pediatric Anaesthesia. 1999
- PCA fentanyl for labour analgesia.
   1999
- 1 OA Teritarry for labour analycesia.
- Resident Supervisor for Obstetric Anaesthesia.
   1998 2000
- Pediatric Anaesthetic Preoperative Assessment.
   1997
- Principles of Research Design (Annual Seminar).
- Anaesthetic Considerations in Pre-eclampsia.

  1996
- Bimonthly Obstetric Anaesthesia Teaching Seminar to Anaesthesia Residents on site.
- Obstetric Anaesthesia Seminars Monthly to Residents on a variety of topics.
   1988 1994
- The University of Toronto. Annual Lecture: Pharmacology of Induction Agents.
   1983 - 1987

#### **ENT Core Lecture Program**

•	Head and Neck Chronic Pain Management.	2009
•	Head and Neck Chronic Pain Management.	2008
•	Head and Neck Chronic Pain Management.	2006
•	Head and Neck Chronic Pain Management	2003



#### **Obstetrics/ Gynecology Core Lecture Program**

- Obstetrics and Gynecology Resident Seminars annually in Obstetric Anaesthesia. Plastic Surgery Core Residency Lecture Program 1989 - 1991
- Complex Regional Pain Syndrome.
   2004

#### Other

 Neonatal Airway Training Cat Lab (organized practice session for anaesthesia residents on neonatal intubation and establishment of a percutaneous cricothyroidotomy airway using anesthetized cats as a model).

#### **Continuing Medical Education**

#### Organizer - CME course

- Conference Co-Organizer, A Balanced Approach to Pain Management, In-Medic Pain Management Centre, London, Ontario
   2012
- Conference Co- Organizer. Interurban Pain 2005
- Organized two-day workshop in acute and chronic pain management for Merck-Frosst Musculoskeletal Health Associates. 2003
- Organized educational dinner meetings for 10-12 invited participants. Case discussions presented focusing on a particular topic (Two to three/year).
   2001 - 2005
- Organizer, Midwest Anaesthesia Residents Conference (MARC). Presenter -Department Rounds 1996 - 2000
- Department of Anaesthesia, Citywide Rounds: Chronic Post-Surgical Pain.
   2002
- Department of Anaesthesia Citywide Rounds: Acute Pain Management for the Chronic pain patient.
- Departmental Rounds on a variety of topics (2-3 times per year). 1987 2003

#### **Family Practice Core Lecture Program**

- Internal Medicine Residency Core Lecture Program, Pain Medicine The Basics, June 4, 2015
- Family Practice Resident Half Day Seminar in Chronic Pain: Pharmacologic Management: Opioid and Non-Opioid prescribing.
- Family Practice Residency Half Day Seminar in Chronic Pain.
   2007
- Family Practice Faculty Half-Day-Update in Chronic Pain.
   2006

#### Nursing

- Collaboration in Action: Acute and Chronic Pain Management. Invited Conference Planner, Office of Interprofessional Health Education and Research (IPHER), Western
- In-Service to University Hospital L8 Surgical Nurses: Pain in the Abdominal Wall.
- In-Service to Operating Room Nurses: Placebo Response and Pain. 2004
- In-Service to Nurse Educators of London-Middlesex Public Health Department: Ambulatory Epidurals.
- Peri-operative Nursing Degree Program: Pharmacology of drugs used in the operating room.
- In-Service to Operating Room Nurses: Anaesthesia for Caesarean Section.
   1991

. . . .

1999



- In-Service to Family Birthing Unit Nurses: Epi-Morph for Caesarean Section.
   1990
- Epidural Certification for Labour and Delivery Nurses. Respiratory Therapy
   1989 1998
- Coordinator for Clinical Instruction in O.R. for Respiratory Therapy Students.
   1991 1995
- Neonatal Resuscitation Lecture to Respiratory Therapy Students. 1984 1987

#### Other

- Organizer. Thames Valley Family Health Team Collaboration. Support and development of role of physician lead for chronic pain at Thames Valley Family Health teams.
- Met with Team Leaders of Family Health Team, Wortley Village Family Practice Site has been designated as a Chronic Pain Pilot Center with Dr. Jeff Spence as Physician
   2009 - 2011
- Champion. Agreed to provide preceptorships in SJHC Pain Clinic to nursing, pharmacy, and physician team members to assist with pain assessment and treatment.
- SJHC Pain CLinic/Thames Valley Family Health Team Pain Pilot.2009 2010
- Judge: McMaster Western Resident Research Day. 2006
- Judge and Co-Chair: Chronic Pain Poster Session, Canadian Anesthesia Society Meeting.
- Complementary and Alternative Medicine Curriculum Committee in Medical Education.
- Initiated monthly case discussions rounds for Interdisciplinary Pain Clinic.
   2004 2005
- Developed role of Education Coordinator for UWO Interdisciplinary Pain Program.
- Initiated and judged an essay writing contest for Meds I-II students on painrelated topics. Award sponsored by Janssen Ortho Inc. to raise awareness of pain management chair at UWO.
- Organized lecture series for UWO Interdisciplinary Pain Program.

2002 - Present

- Preceptor for clinical course work leading to Nurse Practitioner Diploma. Kim Horrill
- Hands-on Instruction in Operating Room to Neonatology residents and consultants in insertion of LMA in infants.
   1999 - 2000
- Session Moderator for Basic Science and Clinical Abstract Presentations (MARC).
   1997 - 2000
- Judge of Clinical Abstracts Presentations (MARC). 1996

#### **TEACHING INNOVATIONS**

#### **Teaching Innovations / Curriculum Development**

 Chair, Conference Organizing Committee, A Balanced Approach to Pain Management" targeting community pain physicians, family doctors, and postgraduate trainees .May 30-June 1, 2014. In-Medic Pain Management Centre, London, Ontario.



Course instructor for revised case-based interdisciplinary 18 hour Meds IV
 Selective on Pain Medicine (6 hours lecture time)

#### **Conference Organizer**

- Lead Role on Organizing three day Conference "A Balanced Approach to Pain Management" targeting community pain physicians, family doctors, and postgraduate trainees. March 23-25,2012. In-Medic Pain Management Centre, London, Ontario.
- Chair, Royal College Task Force for the Royal College Accreditation of Pain Medicine as a Subspecialty
   2011 - 2013
- Lead Applicant on, and Chair of Task Force to produce Phase II Proposal to Royal College of Physicians and Surgeons of Canada to make Pain Medicine a subspecialty of Anesthesiology. Successful May 2010.
   2006 - 2010
- Director-UWO Interdisciplinary Pain Program, Chair, Earl Russell Pain Management. Purpose: to improve clinical care, education & research into chronic non-cancer pain, cancer pain, and acute pain
   2001 - 2005
- Key contributor. Patient information Pamphlet: Stop Smoking for Safer Surgery.
- Centers for Pain Management (CPM) Preceptor one-on-one supervision of family doctors/emergency medicine doctors to teach clinical management of chronic pain
   2007 - 2008
- Joint Collaboration between Pfizer Canada and the University of Western Ontario CME PeerviewProgram. CD ROM: Demystifying Neuropathic Pain.
- Instituted and organized monthly Clinical Case Discussions for SJHC Pain Clinic (Breakfast and Learn Seminar Series). 2004 - 2013
- External Consultant for Merck-Frosst. Significant Contributor to CD ROM:
   Role of Coxibs in Pain Management.
- Organized Two-day Clinical Preceptorship for Merck Frosst Health Associates- determined curriculum, arranged speakers.
- Instituted and organized monthly Interdisciplinary Pain Lectures for UWO
   Pain Program including invited and local speakers.
- David Ng, Meds III, Undergraduate, Presentation on "The Placebo Response-Friend or Foe." Organized this event for Meds I-II students to raise awareness of study of pain at UWO.
- Epidural and Analgesia Patient Information Pamphlet. Written by Dr P Morley-Forster
   1999
- Nursing Education Video-written and directed by P Morley-Forster Nitrous Oxide Analgesia in Labour.
- Took primary responsibility for developing and implementing the highly successful Parent Present at Induction program (Stand by Me) at St.
   Joseph's Health Care.
- Patient Education Video: Demonstration of anaesthetic induction techniques for Stand By Me Program allowing parents in the OR. Written and directed by Dr. P. Morley- Forster
- Epidural Anaesthesia and Analgesia: A Self-Study Review for Nurses Education.
- Nursing Education Video: Continuous Epidural Infusions. Written and directed by Dr. P. Morley-Forster



students.

SU	PERVISION AND MENTORING		
Sup • •	Dr. Wern Hsien Bin, Faculty Supervisor, Chronic Pain Fellow	culty	2011 2011 Ity 2009
•	, ,	2007 - 2006 -	n, 2009 2007
•	Dr. Shyam Balasubramanian, Faculty Supervisor, Chronic Pain F	2005 -	2006
•	Dr. George Kim, Primary Supervisor, Family Medicine-one month Jana Moulin-McMaster Faculty of Medicine, Faculty of Medicine S Research Students, Primary Supervisor Dr Jeff Spence, Dr Birgit Volkentanz, Dr Deborah Dyke, One day Practice Preceptorships. Primary Supervisor	Summe Family	2005 er 2005 ,
•	Dr. Waseem Ashraf, Faculty Supervisor, Chronic Pain and Region	2003 -	low 2004
•	Primary Supervisor Dr. Indu Singh, Faculty Supervisor, Obstetric Anesthesia Fellow Dr. Michael Currin, Faculty Supervisor, Obstetric Anesthesia Fello	2001 - 1999 -	2002 2000
•	Dale Tanzer, Faculty Of Medicine Summer Research Students, P Supervisor Dr. Kevin Armstrong, Faculty Supervisor, Obstetric/Regional Anes	•	1997
•	Fellow Johanna Weberpals, Faculty of Medicine Summer Research Stud Primary Supervisor	1996 - lents,	1997 1996
•	Michael Taylor, Faculty of Medicine Summer Research Training Program,,Primary Supervisor Ambrose Au, Faculty of Medicine Summer Research Students, Pr	rimary	1994
•	Supervisor Grant Lu, Faculty of Medicine Summer Research Students, Prima Supervisor Clinical Supervision in the Pain Clinic of Anesthesia,	•	1991

Rheumatology, Neurology, and Family Medicine Residents and Medical

1990



# **Additional Mentoring Activities**

•	Faculty Mentor to Dr Qutaiba Tawfic-Mahodi		2014
•	Faculty Mentor to Dr C Clarke	2011 -	2013
•	Faculty Mentor to Dr G Bellingham	2010 - Pr	esen
•	Faculty Mentor to Dr Ngozi Imasogie	200	8 - 10
•	Faculty Mentor during anesthesia residency to Dr. Vanessa W	/ong	
		1996 -	1999
Dro	fessional Contributions to Community		
-	Member , St Jude's Church Renewal Committee	2014 -	2015
•	St Joseph's Health Care Stair Climb Team, Top Fund-raiser 2		
•	St Joseph's Fleath Care Stall Climb Team, Top Fund-raiser 2	2009 -	
•	Interviewed on Canada AM, CBC Radio , 12 stations national		2017
•	Medicine Residency"	iy i aiii	2014
	Interviewed for London Free Press "Pain Medicine Residency	,11	2014
•	Fundraiser, Heart and Stroke Foundation.	2010 -	
•	Participant in London Public Forum, Organized by Canadian F		
			2010
•	Initiated support group for patients with Complex Regional Pa	in Syndror	ne
	with Cathy Lowery RN.	•	2010
•	Interview for Radio AM 800 Windsor.		2009
•	Interview for Chatelaine Magazine, "Everything you need to ke	now about	
	painkillers."		2009
•	Interviewed for London Free Press "Getting Older, Bigger Pai	n" (by Mar	y
	Jane Egan). London, Ontario		2007
•	Interview for Vim and Vigour on Chronic Pain (by Amy Lynn S	5mith). Ont - 2007	
•	Interview for Royal Canadian Legion Magazine on Chronic Pa	ain.	2006
•	Member of organizing committee and speaker: Living with Ch		,
	Helping You Move Forward.		2005
•	Interview for Toronto Sun re: Post-herpetic Neuralgia Vaccine	(by Marily	/n
	Linton). Ontario		2005
•	Interview for The New PL for Pain Awareness Week. Ontario		2004
•	Interview for the Jim Chapman Show, Living With Chronic Pai		
•	Interview for the National Post regarding two cases of accider	ntal overdo	
	with Duragesic patches. Ontario		2004
•	Interview for The New PL (Today's Woman) on Chronic Pain	and Addict	tion. 2004
•	Ontario Labatt's 24 Hour Relay Team, "The Hulcsters." Top F the	und-raiser	on 2004
	Team. Ontario Invited member: International Association of Pe	oets	200
	The state of the s	2003 -	2008
•	Labatt's 24 Hour Relay Team, Co-Captain of "The Dream Tea		
	\$6800. Ontario		2002
•	Interview for CBC (Ontario in the Morning) re Earl Russell Cha Management. Ontario	air in Pain	2002
	Interview for CRC (Ontario at noon) re: Pain Management Or	ntario	2002



- Interview for the New PL regarding the Earl Russell Chair in Pain Management. Ontario
   2002
- Interview for CJBK regarding the Earl Russell Chair in Pain Management.
   Ontario
- Interview for CFPL TV regarding Anesthesia for the Lithotripsy Program at St. Joseph's Health Care. Ontario
- Presentation on Cardiovascular Fitness and Strength Training at the Wellness Fair, St. Jude's Anglican Church, London, Ontario. London, Ontario 1999
- Interview for CFPL TV regarding Stand By Me Program at St. Joseph's Health Care. Scarborough, Ontario
- Mentor to grade 12 students for independent studies project on Spinal Pain Pathways. Organized by Roger Duskey of the London Board of Education. London, Ontario
- Morning Workshop for Operating, PACU and Anaesthesia Staff of Scarborough Centenary Hospital: How to Implement your Own Parent Present at Induction Program. Scarborough, Ontario
- Parent Volunteer at Masonville Public School, London, Ontario 1989 1994



# TAB 10. ORTHOPEDIC SURGERY



# TAB 11. DR. HARSHA MALEMPATI – CV

# Harsha Malempati, MD, MSc, FRCS(C)

101-240 Duncan Mill Road North York, Ontario M3B 3S6

Tel: 416-840-5990 ext. 24

Fax: 647-427-4100

Experts@AllevioClinic.com

## **EMPLOYMENT**

Sunnybrook Health Sciences Centre, Toronto, OntarioOrthopaedic and Spine Clinical Associate, University of Toronto2013MacKenzie Health - York Central Hospital, Richmond Hill, OntarioSurgeon - privileges in Orthopaedic and Spinal Surgery2013

#### **EDUCATION**

University of Washington - Harboview Medical Center, Seattle, Washington, USA 2011 - 2012

Clinical Fellowship in Spine Surgery, supervisors include:

- Jens Chapman
- Carlo Bellabarba
- Richard Bransford
- Michael Lee
- Ted Wagner

#### **Institute of Medical Science**

M.Sc., Surgeon Scientist Program, Division of Surgery

University of Toronto, Toronto, Ontario

Surgical Residency Training, Department of Orthopedic Surgery

University of Toronto, Toronto, Ontario

Doctor of Medicine - M.D.

2008- 2010

2005-2011

2005-2011

University of Windsor, Windsor, Ontario

Bachelor of Science - B.Sc. - General Science Minor - Psychology 1998-2001

# PROFESSIONAL CERTIFICATION/LICENSES



College of Physicians and Surgeons of Ontario
 Postgraduate Medical License; #82999

 Advanced Cardiac Life Support

#### **MEMBERSHIPS**

•	American Association of Orthopaedic Surgeons	2011
•	Canadian Spine Society	2009 - Present
•	Canadian Orthopaedic Association	2007 - Present
•	Canadian Orthopaedic Residents Association	2007 - 2011
•	Canadian Medical Association	2005 - Present
•	Ontario Medical Association	2005

#### AWARDS AND ACHIEVEMENTS

•	University of Toronto, Toronto, Ontario	
	Best Spine Research Paper, Graduation Day 2011	2011
•	Ontario (Canada) Graduate Scholarship (\$15 000)	2009
•	University of Toronto, Toronto, Canada	
	GSEF (Graduate Students Endowment Fund) Scholarship (\$5000)	2009
•	CIHR Medical Research Scholarship of Canada (Medical Student	
	Scholarship) (\$5000)	2003

 University of Windsor, Windsor, Ontario
 Dean's Gold Medal, Faculty of Science, Awarded to graduating student with highest academic standing in the discipline of General Science B.Sc. 2001

University of Windsor, Windsor, Ontario
 President's Roll for academic distinction during all three years of B.Sc.,
 1998 - 2001

 National Science and Engineering Research Council (NSERC) of Canada Research Scholarship

- National Science and Engineering Research Council (NSERC) of Canada Research Scholarship
- National Science and Engineering Research Council (NSERC) of Canada Research Scholarship

#### RESEARCH EXPERIENCE

# Institute of Medical Science, University of Toronto, Toronto, Ontario

2008 - 2010

- Master's Thesis, Department of Orthopaedic Surgery
- Thesis Supervisor: Dr. Albert Yee MD. FRCSC
- Thesis Title: "The evaluation of Canadian Spine Surgical Fellowship Training: A Review of Educational Objectives and Current Surgical Practice"

#### Brigham & Women's Hospital Harvard University, Boston, Massachusetts 2003

 Assessment of clinical outcomes of patients treated for multiple focal cartilage defects by autologous chondrocyte implantation at 2 and 7 years follow-up.



- Effects of previous cartilage stimulation techniques on outcomes of autologous chondrocyte implantation.
- Outcomes of patients receiving low femoral and high tibial osteotomies for malalignment of the knee.

#### University of Windsor, Windsor, Ontario

2001

 Department of Inorganic Chemistry, Research of catalytic production of polyethylene with organometallic catalysts. Supervisor: Dr. Doug Stephan

#### University of Windsor, Windsor, Ontario

2000

 Department of Organic Chemistry, Research of organic synthesis of iron and cobalt complexes and organometallic chemistry. Supervisor: Dr. James Green

#### University of Windsor, Windsor, Ontario

1998

 Department of Organic Chemistry, Research of organic synthesis of macrocyclic ligands for the trapping of metals and other toxic substances. Supervisor: Dr. Philip Dutton

#### RESEARCH FUNDING & GRANTS

 The University of Toronto Collaborative (UT-SpineLINK): Creation of a collaborative model to enhance the triage and care of acute spine patients. Yee A, Fehlings M, Nathens A, Ahn H, Ginsberg H, Malempati H, Webster F, Sargeant D, Hickley N, Mraz, R, Schull M, Furlan J, Neary M: MOHLTC AFP Innovation Fund (\$100,000 2009-2010)

# PUBLICATIONS (PEER-REVIEWED)

- Webster F, Fehlings MG, Rice K, Malempati H, Fawaz K, Nicholls F, Baldeo N, Reeves S, Singh A, Ahn H, Ginsberg H, Yee AJ. Improving access to emergent spinal care through knowledge translation: an ethnographic study. BMC Health Serv Res. 2014 Apr 14;14(1):169.
- Malempati H, Ching R, Hacquebord J, Patel A, Chapman J, and Lee M. Biomechanical study of enhancing pedicle screw fixation in the lumbar spine utilitizing allograft bone plug interference fixation. Abstract accepted to AOSNA Annual Fellows Forum 2012 - Banff, Alberta Feb 2012; Submitted to Spine Mar 2012.
- Malempati H, Hacquebord J, Patel A, Cizik A, Hamilton D, Bransford R, Bellabarba C, Chapman J, and Lee M. Risk factors for neurological complication from spine surgery: a multivariate analysis of 1,951 patients. Manuscript in preparation.
- Patel A, Malempati H, Louie P, Ortiz J, Bellabarba C, Chapman J, and Bransford R. A retrospective review of 204 patients with spinal epidural abscesses: risk factors, trends, and outcomes of surgical and medical management. Abstract accepted to AOSNA Annual Fellows Forum 2012 -Banff, Alberta; manuscript in preparation.
- Malempati H, Bederman S, Kreder H, Backstein D, and Yee A. Recent trends in spine surgeon volumes and their effect on patient outcomes for



- degenerative disease of the lumbar spine. Can J Surg. Submitted February 2012
- Chrea B, Malempati H, Campbell JR, Khan S, Ching RP, and Lee MJ.
   Enhancing pedicle screw fixation in the lumbar spine utilizing allograft bone plug interference fixation. J Spinal Disord Tech, 2013 Nov 6 (epub ahead of print).
- Malempati H, Wadey V, Paquette S, Kreder HJ, Massicotte EM, Rampersaud R, Fisher C, Dvorak M, Fehlings M, Backstein D, and Yee A. Spine surgery fellowship education in Canada: Evaluation of trainee and supervisor perspectives on cognitive and procedural competencies. Spine, 2013 Jan;38(1):83-91.
- Bederman S, Murnaghan O, Malempati H, Lansang E, Wilkinson M, Johnston E, Bronstein Y, Finkelstein J, and Yee A. In-hospital mortality and surgical utilization in severely polytraumatized patients with and without spinal injury. J Trauma, 2011 Oct;71(4):E71-8.
- Peskun C, Mayne I, Malempati H, Kosashvili Y, Gross A, and Backstein D. Cardiovascular Disease predicts complications following bilateral total knee arthroplasty under a single anaesthetic. Knee, 2012 Oct;19(5):580-4.
- Marchie A, Malempati H, Indar R, Finkelstein J, Ford M, and Yee A. Fracturedislocation at the thoracolumbar junction in a patient with an associated traumatic lumbosacral spondylolisthesis: a case report. Journal of the Canadian Spine Society. Submitted Jan 2014.

# PUBLICATIONS (NON PEER-REVIEWED) / BOOK CHAPTERS

- Malempati H, Qamirani E, Yee A. Spine: Operative Management of Metastatic Disease/Myeloma. In Evidence-based Orthopaedics by Bandari M.BMJ. In print 2011.
- Malempati H, Qamirani E, Yee A. Spine: Nonoperative Management of Metastatic Disease/Myeloma. In Evidence-based Orthopaedics by Bandari M. BMJ. In print 2011.
- MCCQE 2005, 21st edition. Orthopaedics Chapter. Malempati H, Van Houwelingen A, and Van Vliet A. Toronto Notes Medical Publishing Inc: 2005.
- Malempati H, et al. Droopy Lid. University of Toronto Medical Publishing Inc: 2003.
- Malempati H. Prolific Scientist Profiles. University of Toronto Medical School Journal. 2003: 80(2), 128-30.

#### POSTERS AND PRESENTATIONS

- Surgery for the Degenerative Lumbar Spine: A Study of Recent Trends
  Outcomes in Current Surgical Practice. University of Toronto Orthopaedic
  Graduation Day 2011, University of Toronto, Toronto, Canada (Oral) 2011
- The Provision of Emergent Spinal Care from a Health Care Delivery
  Perspective: Results from a Demonstration and Evaluation Project in the
  Integration of Care Delivery, the UT-SpineLINK Experience, Canadian Spine
  Society Annual Meeting 2011, Quebec City, Quebec, Canada (Poster) 2011



- Canadian Spine Surgical Fellowship Training: A Review of Technical and Procedural Competencies, Canadian Orthopaedic Association Annual Meeting 2010, Edmonton, Alberta, Canada (Oral)
- Spine Surgery Fellowship Training: A Review of Technical and Procedural Competencies, Canadian Orthopaedic Residents Association Annual Meeting 2010, Edmonton, Alberta, Canada (Oral)
- Canadian Spine Surgery Fellowship Training: A Review of Technical and Procedural Competencies. Canadian Spine Society Annual Meeting 2010, Lake Louise, Alberta, Canada (Oral)
- Spine Surgery Fellowship Training in Canada: A Review of Educational Objectives. University of Toronto Department of Surgery Annual Meeting Gallie Day, University of Toronto, Toronto, Canada (Poster)
- Spine Surgical Fellowship Training: A Review of Educational Objectives.
   University Wide Orthopaedic Grand Rounds, University of Toronto, Toronto,
   Canada (Oral)
- Spine Surgical Fellowship Training: A Study of Current Educational Objectives and Competencies. Orthopaedic Research Day, University of Toronto, Toronto, Canada (Oral)
- IntraOperative Motor Evoked Potential Changes in Children Treated with IntraOperative Skull Skeletal Traction for Severe Coronal Plane Deformities. Lewis S, Holmes L, Strantzas S, Malempati H, Zarour C, Ahier J, Zeller R. Canadian Spine Society Annual Meeting 2009, Gatineau, Quebec, Canada (Oral)
- What does it take to be a Spine Surgeon? A Review of Competencies in Fellowship Training. SpineFEST Visiting Professorship, University of Toronto, Toronto, Canada (Oral)
- Cardiovascular Disease is a Contraindication to Bilateral Total Knee
  Arthroplasty Under a Single Anaesthetic. American Academy of Orthopaedic
  Surgeons (AAOS) Annual Meeting 2009, Knee Society Specialty Day. (Oral)
  2009
- Autologous Chondrocyte Implantation and other Cartilage Repair Techniques. North York General Hospital, Orthopaedic Surgery Grand Rounds. Toronto, Ontario. (Oral)



## TAB 12. DR. HARSHA MALEMPATI – SAMPLE REP



Allevio Pain Management

Anesthesiology & Chronic Pain Management

240 Duncan Mill Road Suite 101
Toronto. Ontario M3B 3R6

Telephone: (416) 840-5990 Fax: (647) 427-4100

#### INDEPENDENT ORTHOPEDIC ASSESSMENT

FOR:

Ms. XXX

A. Law Firm P.C. 11 Bloor Street West

Suite 3080

Toronto ON M8X 2X3

RE:

Nial DOE

Date of Birth: September 17/1958
Date of Accident: June 29/2010
Date of Assessment: April 30/2014
Date of Report: April 30/2014

#### ASSESSOR:

Harsha Malempati, MD, MSc, FRCS(C) Orthopedic Surgery

#### PROFESSIONAL DESIGNATION:

I am a qualified orthopaedic surgeon and a fellow of the Royal College of Physicians and Surgeons of Canada. I am a member in good standing at the College of Physicians and Surgeons of Ontario. I completed six years of orthopaedic surgery training at the University of Toronto, including a Master's of Science in the Institute of Medical Science. Following this residency training, I completed a one-year spine surgery fellowship at the University of Washington-



Harborview Medical Center, with particular interest in the management of spine and orthopaedic trauma.

I currently have appointments at Sunnybrook Health Sciences Centre and MacKenzie Health- Richmond Hill (York Central Hospital). My practice includes the treatment of orthopaedic trauma, spine trauma, and all adult elective spine pathologies.

I have been involved with orthopaedic related research that has been presented at the Canadian Orthopaedic Association annual meetings, the Canadian Spine Society annual meetings, and the American Academy of Orthopaedic Surgery.

I am licensed to practice in the province of Ontario. I am a member of the Canadian Orthopaedic Association, the American Academy of Orthopaedic Surgery, and the Canadian Spine Society.

# PURPOSE OF ASSESSMENT:

I have been asked to perform an Orthopaedic assessment for Ms. Xxx Xxx with respect to injuries sustained in a motor vehicle accident on August 3, 2010. The purpose of the assessment was outlined to Ms. X prior to proceeding and verbal consent was obtained to proceed.

#### DOCUMENTS RECEIVED AND REVIEWED:

- 1. Motor vehicle accident report, dated August 3, 2010
- Quinte Health Care Diagnostic Bone Scan report, dated February 25, 2011
- Northumberland Hills Hospital, MRI of right ankle, dated February 9, 2012

   the report says no acute bony abnormality identified. No significant ligamentous or tendinous injury identified. The lateral malleolus appears unremarkable
- 4. Quinte Health Care, Trenton Memorial Hospital, clinical notes and records
- 5. Ambulance Call Report
- 6. Quinte Health Care, Belleville Hospital, general records June 18, 2013
- 7. Dr. Katherine Pauline Allen, clinical note dated August 9, 2010
- 8. Dr. Maureen Simmons, clinical note, dated August 19, 2010
- Dr. Maureen Simmons, Disability Certificate, clinical notes for August 3 and 5, 2010
- 10. Dr. Maureen Simmons, clinical note, dated February 7, 2011
- Dr. Maureen Simmons, clinical notes and records, September 2007 to July 2011
- 12. Dr. Maureen Simmons. Disability Certificate. dated January 20, 2012
- 13. Dr. Katherine P. Allen, clinical notes and records, dated March 13, 2013
- 14. Dr. M.L. Simmons, updated clinical notes and records, dated April 18, 2013
- 15. Dr. James A. MacLean's CNR, dated May 28, 2013
- 16. OHIP Summary, claim period from August 3, 2007 to November 14, 2011
- 17. OHIP Summary, claim period from November 14, 2011 to March 6, 2013
- 18. Quinte Foot Care Clinic, notes and records, May 9, 2011 to April 16, 2013
- 19. Physio One Sports
  - a. Jillian Homes, Physiotherapist, Treatment Plant (OCF-18), dated August 25, 2010



- Jillian Homes, Physiotherapist, Disability Certificate (OCF-3), dated September 8. 2010
- Jillian Pascao, Minor Injury Treatment Discharge Report (OCF-24), dated April 11, 2011
- d. Jillian Pascao, Disability Certificate, dated August 5, 2011
- 20. Quality Health Assessment Incorporated
  - Yonit Nisan and Lydmila Havrylechko, Treatment and Assessment Plan (OCF- 18), dated March 14, 2011
  - b. Dr. Khal Efala, Physician, Treatment and Assessment Plan (OCF-18), dated March 21, 2011
  - Maryam Nik and Philip Kalvari, Treatment and Assessment Plan (OCF-18), dated March 31, 2011
  - d. Arvind Kumar Gupta, Occupational Therapy In-Home Assessment Report, dated April 5, 2011
  - e. Mikhael Shteynberg, Chiropractor, Treatment and Assessment Plan (OCF-18), dated April 15, 2011
  - M. Shteynberg, Functional Capacity Evaluation Report, dated April 17, 2011
  - g. Philip Kalvari, Gait Analysis, Foot Biomechanical Evaluation Report, dated June 13, 2011
  - h. Dr. Khal Efala, Orthopaedic Surgeon, Independent Orthopaedic Examination, dated June 13, 2011
  - Dr. Inese Robertus, Physician, Treatment and Assessment Plan (OCF-18), dated August 25, 2011
  - Dr. Inese Robertus, Physician, Treatment and Assessment Plan (OCF-18), dated September 23, 2011
  - k. M. Shtevnberg, Work-Site Assessment Report, dated October 10, 2011
  - Arvind Kumar Gupta, Occupational Therapy In-Home Assessment Report, dated November 21, 2011
- 21. Accident Benefits Assessment
  - Helen Leimonis, Insurer Examination Occupational Therapy Paper Review, dated June 20, 2011
  - Dr. Adam Goldfarb, Independent Chiropractic Examination, OCF-18 File Review, dated July 22, 2011
  - Community Living Algonquin and Lakeshore, Employer's Confirmation Form (OCF-2), dated August 13, 2010
  - d. Community Living Employment file, dated May 25, 2013
  - Algonquin and Lakeshore Catholic District Board employment file, dated May 27, 2013
- 22. Canada Revenue Agency
  - a. Income Tax Returns from 2006 to 2010
  - b. Tax Return for 2011
  - c. Tax Return for 2012

# ACCIDENT DETAILS AND CHRONOLOGY OF EVENTS:

Ms. Xxx states that the accident occurred at about 4:00 p.m. on August 3, 2010. She states that the weather conditions were clear. She was driving from North Beach to Highway 401.

She states that she was driving her boys home from the beach. She was the belted driver of an SUV motor vehicle and was in the car with two of her sons.



The accident occurred at the intersection of Wooler Road and Highway 2 in Trenton, Ontario. She was proceeding through the intersection on a green traffic light when she had to swerve to the left to get out of the way of a truck that was veering into her lane. She reports that she was driving about 60 km/h.

She was aware of the impending collision and tried to brace for it. She states that she did not sustain a head injury or loss of consciousness. She exited the vehicle after the accident and stated that there was extensive damage to the car which was essentially "a write off". On trying to stand, her right ankle gave out. A cardboard splint was applied and she was brought by ambulance to Trenton Hospital.

At the hospital, she was assessed by the emergency physician, diagnosed with a fracture and a third degree sprain of her right ankle. A back slab splint was applied and she was told to follow up with Dr. Kawam, in Belleville. Repeat x-rays were done. Dr. Kawam did not see a fracture on her repeat x-rays and told her that she had a sprain and was discharged.

As a direct result of this accident, she continues to experience daily right ankle pain. She attended physiotherapy for a period of one year with her last session being about 2 years ago. She wears orthotics at work, but still complains of pain. She takes Naprosyn anywhere from 1 to 3 tablets daily.

#### CURRENT ACCIDENT RELATED SYMPTOMS:

Ms. Xxx reports pain around the lateral aspect of her right ankle. The pain is throbbing, which she describes as anywhere from a 1 to 2 out of 10 in intensity to a 7 out of 10 in intensity. She reports the feeling of electrical shocks. She has episodic giving way of her ankle. In addition to her ankle complaints, she reports difficulty sleeping and dizziness.

#### SOCIAL HISTORY:

Ms. Xxx has a college education as a Developmental Service Worker. This was completed in Canada. She works in community living as a residential counsellor/DSW. She is currently working 40 hours per week, which in her line of work is considered modified, or part time hours, at full duties. She has been limited to 8 hours per shift due to pain, however, she states that since December her work is asking that she do 10 to 12 hours per shift. She used to work a total of 60 hours per week. She is not able to cope with the additional hours due to her symptoms.

### PERSONAL AND VOCATIONAL HISTORY:

Ms. Xxx lives in a house. She has a common law relationship with her husband. They have three children, aged 20, 18 and 16 years. Prior to the accident, she was quite active doing most of the home maintenance activities. Her sons now do all of the snow shoveling and lawn maintenance. They help her out carrying the laundry and groceries. She is able to do the heavier aspects of housekeeping; however she uses pacing strategies when doing so.



#### PAST MEDICAL HISTORY:

Ms. Xxx has a history of migraines. She has no history of previous WSIB claims or motor vehicle accidents. She takes Omeprazole, Zolmitripane, Naprosyn 500 mg 1 to 3 tablets a day, Elavil 50 mg at night. She has no drug allergies.

#### PHYSICAL EXAMINATION:

Ms. Xxx's examination began when she was greeted in the waiting area. She was able to walk into the examination room with an essentially normal gait. She was wearing high lace-up boots. Her shoes and socks were removed and her feet were examined. She had some subtle swelling around the peroneal tendons on the right side. She had Grade 4 out of 5 power on testing of the peroneal tendons on the right compared to 5 out of 5 power on the left. This recreated her pain. She had full range of motion of her ankle and subtalar joint. She did not have instability of the peroneal tendons on stress testing. Her testing of the posterior tibial tendon and tibialis anterior tendon were normal. She was able to toe and heel walk. She had numbness in the distribution of the sural nerve distribution on the right side of the lateral aspect of her foot. She had a positive Tinel's over the sural nerve proximally just 5 cm proximal to the tip of her fibula. This recreated some of her symptoms. Her pulses were present and cap refill was normal. Otherwise neurovascular examination was normal.

# RADIOGRAPHIC INVESTIGATIONS:

Standing AP and lateral x-rays were taken of both her feet and ankles in my office today, February 20, 2014. There is evidence of an old avulsion fracture at the level of the calcaneal cuboid joint of her right foot. There is a calcification present. This is very likely an avulsion fracture, either off the anterior tip of the calcaneus or off the tip of the fibula. This is not present on the contra-lateral left side. This finding can be indicative of a chronic peroneal tendon tear or avulsion type fracture.

#### CAUSATION:

Ms. Xxx's avulsion fracture and sural nerve damage of her right foot are a direct result of the motor vehicle accident that occurred on August 3, 2010. Her current condition was caused by this accident and is the reason she continues to have ongoing impairment and disability.

# ANSWERS TO QUESTIONS:

I would now like to answer the questions posed in the letter of referral.

What is the nature of her impairment?
 As a direct result of the motor vehicle accident that occurred on August 3, 2010, Ms. XX sustained an avulsion fracture around her right foot involving the peroneal tendons and has sural nerve damage. If not for the accident, these injuries would not have occurred.



- 2. The permanence of this impairment?
  In my opinion, this injury is permanent and is unlikely to improve.
- 3. The specific function that is impaired? Tearing of the peroneal tendons causes loss of power to walk on uneven ground. She reports pain with standing for prolonged periods of time or with exercise. She also has numbness and sural nerve damage. Given the pain that she has in her foot, she has lost the ability to do several activities she liked to do in the past such as hiking or physical activity. In my opinion, with the chronic damage that she has, this would aggravate her peroneal tendon tear and her nerve damage.
- 4. The importance of the specific function to the person? As a direct result of this injury, Ms. Xxx's life has changed for the worse. She was extremely active prior to the accident. She used to go mountain biking with her husband and hiking. She has been unable to resume these activities. In my opinion this will be on a permanent basis and she has reached maximum medical recovery and will unlikely regain more function than she has at the present time.
- 5. In your opinion, has Ms. Xxx suffered a substantial inability to perform the essential tasks of her pre-accident employment?
  Ms. Xxx, in my opinion, should work no longer than her current maximum of 40 hours per week. Further, if she works longer than this, this may cause aggravation of her peroneal tendon tear and her nerve pain of her foot, which may cause her further pain and suffering. In my opinion, while she can perform full duties, she should remain on modified hours on a permanent basis.
- If your answer to the last question is yes, please advise whether in your opinion she will be able to return to her pre-accident employment. Please refer to the previous question.
- 7. In your opinion, has Ms. Xxx sustained a loss of competitive advantage in the marketplace?
  - Yes. Ms. Xxx has explained to me that in her industry, most people work 12 hour shifts for an average of 60 hours per week. In my opinion, she is unable to work these hours due to her injuries and as a result she will only be allowed to work part-time hours on a permanent basis. As such, she has a loss of a competitive advantage in the marketplace.
- 8. In your medical opinion, does Ms. Xxx require periodic medical and rehabilitation treatment? No, she has reached maximum medical recovery and further treatment is not necessary or reasonable at this time.
- 9. In your opinion, is Ms. Xxx unable to return to her pre-accident employment as a developmental service worker/residential counsellor? Is she a candidate for any of the following: a) vocational assessment; b) job retraining; c) transferrable skills analysis?
  Ms. Xxx is working at her pre-accident employment, however on modified
  - hours. I think it is reasonable for her to continue given that she has the ability to elevate her foot if she becomes symptomatic.
- Given the injuries, impairments and limitations that have resulted from the car accident, in your medical opinion is Ms. Xxx, at the time of her examination,



capable of resuming pre-accident housekeeping and home maintenance duties?

Yes, she is currently doing them, and as such she is able to complete these duties.

- 11. It is reasonable for our client to avoid the heavier and more repetitive chores of housekeeping and home maintenance duties? Yes it is. She currently does them, but uses pacing strategies.
- 12. In your opinion, have the injuries sustained in the accident had a detrimental impact on Ms. Xxx's pre-accident lifestyle activities? Yes, she no longer hikes or mountain bikes, or is active as compared to before. She used to drive her children to their athletic sports. As a direct result of her injuries sustained on August 3, 2010 she has had to stop these. This has had a detrimental effect on her family as well.
- 13. If so, please describe the effect of the physical or psychological injuries have had on her pre-accident lifestyle activities. Please see the previous question.
- 14. Are there any pre-existing injuries which would have pre-disposed her to this impairment?
  No, Ms. Xxx did not have any pre-existing injuries that would have led to this problem.

The opinions offered in this report are those of the evaluator. These opinions are based upon a careful review of documentation that has been made available, the history as obtained from the patient, and the results of the detailed physical examination. These opinions are independent of the referral source and based upon reasonable medical probability. The examiner reserves the right to modify his opinion should additional clinical information become available in the future. In that circumstance, please do not hesitate to contact me. I trust this information is useful to you.

Yours truly,

Harsha Malempati, MD, MSc, FRCS(C) Orthopaedic Surgeon



# TAB 13. DR. RAJIV GHANDI – CV

# Rajiv Ghandi, MD

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# **EMPLOYMENT**

#### Canadian Arthroplasty Society Research Committee.

Committee Member 2015 Sep - Present

# **University of Toronto**

Clinical Cross-appointment and Associate Graduate Faculty Membership in the Department of Laboratory Medicine and Pathobiology (L.M.P) 2015 Sep - Present

#### **University of Toronto**

Curriculum Committee, Arthroplasty Lead, Department of Post Graduate

Education. 2015 Aug - Present

# University of Toronto, Ontario, Canada

Associate Professor, Orthopaedics, Department of Surgery. 2015 Jun - Present

# **University of Toronto**

Committee Member, Division of Orthopaedics Research Committee.

2014 - Present

# Toronto Western Hospital Research, University Health Network, Toronto, Ontario, Canada.

Committee Member. Division of Orthopaedics 2011 Mar - Present

#### **University Health Network Altum Health**

Committee Member, Knowledge Translation Working group. 2011 - Present

#### University Health Network Altum Health, Toronto, Ontario, Canada

Head of Outcome, Measures and Reporting Team 2010 Jan 1 - Present

### University of Toronto, Ontario, Canada

Assistant Professor, Orthopaedics, Department of Surgery. 2008 Aug - 2015 May

# Toronto Western Hospital, University Health Network, Toronto, Ontario,

# Canada

Committee Member - Quality Control. 2008 Jul - Present

#### **CLINICAL**

#### Mount Sinai Hospital, Toronto, Ontario, Canada.

Jul Co-Chairman Young Adult Hip Clinic. Orthopaedics 2009 Jul - 2012

#### RESEARCH

#### University Health Network, Toronto, Ontario, Canada

Research Ethics Board Member. 2010 - 2012



#### **OTHER**

# Toronto Western Hospital, University Health Network, Toronto, Ontario, Canada

Co-Chairman of the Arthritis Program Research Committee. Arthritis Program Research Committee 2009 - 2012

University of Toronto, Toronto, Ontario, Canada

Lecturer, Orthopaedics. 2007 Aug - 2008 Aug

# **EDUCATION**

#### Harvard University, Boston, Massachusetts, United States MSc, Clinical Epidemiology, Harvard School of Public Health. 2007 Jul - 2008 Aug Hamilton, Ontario, Canada MD, McMaster University. 1998 - 2001 Hamilton, Ontario, Canada BSc, McMaster University. 1995 - 1998University of Toronto, Toronto, Ontario Post Graduate Fellowship 2006 - 2007McMaster University, Hamilton, Ontario **Specialty Training** 2001 - 2006

#### **ACHIEVEMENTS**

#### INTERNATIONAL

ILMATIONAL	
BC (American, British, Canadian) Travelling Fellowship, Canadian	
thopaedic Association.	2015
e Spine Journal & NASS Outstanding Paper Award. (Research Award) 2	013 Jul
12 Abstract Award, American Society of Regional Anaesthesia and Pain	
edicine. (Best Abstract)	
ngle-shot or continuous femoral nerve blockade for total knee	
hroplasty? A randomized, placebo-controlled, double blind trial.	2012
ecial Emphasis Poster, American Orthopedic Association. (Distinction)	2009
search Scholarship, American Gastroenterology Association. (Research	
vard).	1998
ATIONAL	

2011 Research Award, Canadian Association of Physical Medicine and Rehabilitation. (Research Award)	
Rehabilitation (Research Award)	
The Opinion of Orthopaedic Surgeons in Ontario on Hip Precautions	
Following Primary Total Hip Arthroplasty for Osteoarthritis. 2011	1
COA 2009- Top 20 Poster Award, Canadian Orthopedic Association	
(COA). (Distinction).	
Predicting Patient Dissatisfaction following Joint Replacement Surgery. 2009	9
Traineeship Grant, Royal College of Physicians and Surgeons of Canada.	

Т (Distinction). 2008 Junior Investigator Travel Grant, Canadian Arthritis Network. (Distinction) 2007 Traineeship Grant, Royal College of Physicians and Surgeons of Canada. (Distinction). 2007



#### LOCAL

Division of Orthopedics Research Prize, Best Clinical Paper, McMaster	
University. (Research Award).	2005
Division of Orthopedics Research Prize, Best Clinical Paper, McMaster	
University. (Research Award).	2004
Senate Scholarship for Academic Achievement, McMaster University.	
(Distinction).	1998
Andrew Foundation Scholarship, McMaster University, (Distinction)	1995

#### **AFFILIATIONS & ACTIVITIES**

# **Toronto Western Hospital**

Active Member, Arthritis Program Research Committee, Toronto, Ontario, Canada. 2009 - Present Member, MHA Quality Committee, Toronto, Ontario, Canada. 2007 Sep - Present Co-Chair, Division of Orthopedics Research Committee, Toronto, Ontario, Canada. 2009 - 2012 Committee Member, ALC Project Implementation Team, Toronto, Ontario, Canada 2007

#### **University Health Network**

Board Member, Research Ethics Board, Toronto, Ontario, Canada. 2010 - 2012 Executive, Total Joint Network, Toronto, Ontario, Canada. 2008 - 2011

#### **University of Toronto**

Co-Director, University of Toronto Young Adult Hip Clinic, Faculty of Medicine, Toronto, Ontario, Canada. 2008 - 2010 Research Funding

# GRANTS, CONTRACTS AND CLINICAL TRIALS

#### Funded peer-reviewed grants

- Co-Investigator. Sex Differences in the Association Between Inflammatory Biomarkers and Knee OA Pain. New Investigator Musculoskeletal Health Bridge Funding, Canadian Institutes of Health Research Operating Grant (CIHR). PI: Perruccio A, Co-Investigators: Badley Elizabeth, Chandran, Vinod, Gandhi Rajiv, Kapoor Mohit, Rampersaud Yoga. 100,000 CAD. 2015 Jul – 2016 Jun
- Co-Principal Investigator. To determine the specific in vivo role of ULK1 in the pathophysiology of Osteoarthritis. Arthritis Program Start-up Grants.
   CoPI: Gandhi R, Kapoor M. Collaborator(s): Haroon N L. 50,000 CAD 2015 Apr – 2016 Mar
- Collaborator. Femoroacetabular Impingement Randomised Controlled Trial (FIRST). Canadian Institutes of Health Research Operating Grant (CIHR). Pl: Olufemi Ayeni Co-Pl: Mohit Bhandari. Collaborators: Asheesh Bedi, Rajiv Gandhi, Uffe Jorgensen, Antti Joukainen, Volker Musahl, Douglas Naudie, Matti Seppanen, Raine Sihvonen, Gerard Slobogean, Lehana Thabane, Daniel Whelan, Dale Williams, Ivan Wong. 471,740.84 CAD [Grants].
   2014 Oct – 2017 Sep
- Co-Principal Investigator. Sex specific associations between inflammatory mediators and pain in knee OA. A Pilot Investigation. Arthritis Program



- Startup Grants. PI: Gandhi R, Perruccio AV. Collaborator(s): Chandran V, Venkatraghavan L. 25,000 CAD [Grants]. 2014 Jun 2015 May
- Collaborator. Quantifying and Understanding a "Good" Outcome following Total Knee Replacement. The Arthritis Society. Strategic Operating Grant. PI: Davis, Aileen. Collaborator(s): Mahomed NN, Perruccio AV, Chesworth R, Gandhi R, Hogg-Johnson S, Waddell, RV. 329,832 CAD. [Grants]
   2013 Oct - 2016 Sep
- Co-Principal Investigator. Inflammation and Painful Joint Burden in Osteoarthritis, as a matter of SeXX. The Arthritis Foundation and Autoimmunity Research Centre. Pl: Gandhi R, Perruccio AV. Collaborator(s): Chandran V. 35,000 CAD. [Grants] 2013 Feb – 2015 Jan
- Collaborator. Orthopaedic Surgical AdVerse Events Severity (OrthoSAVES)
   System: Identifying opportunities for improved patient safety and resource
   utilization. Canada's Academic Health Sciences Centre's (AHSC). AFP
   Innovation Fund. PI: Rampersaud YR. Collaborator(s): Gandhi R, Mahomed
   NN, Lewis S, Veillette C. 166,000 CAD. [Grants] 2012 Jul 2013 Jun
- Co-Investigator. Characterizing the 5-year natural history following total joint replacement for osteoarthritis-Assessing the links with later revision surgery and poorer patient-reported outcomes. Canadian Arthritis Network. PI: Perruccio, AV. Collaborator(s): Gandhi R, Davis A, Badley E, Mahomed N. 50,000 CAD. [Grants]
- Collaborator. Knee Surgery Triage Tool. NRC Industrial Research Assistance Program. 769823. PI: Cook, D. Collaborator(s): Gandhi R, Brean M, Mahomed N. 5,893 CAD. [Grants]
   2012 - 2013

#### Funded non-peer-reviewed grants

- Principal Investigator. Metabolic Syndrome: An inflammatory osteoarthritis phenotype. The Krembil Foundation. Collaborator(s): Gilbert P, Mahomed NN. 466,000 CAD. [Grants]
- Principal Investigator. Evaluation of Rivaroxaban following Hip and Knee Arthroplasty: Phase IV evaluation. Bayer. Collaborator(s): Mahomed NN, Davey JR, Syed KA. 150,000 CAD. [Clinical Trials]
- Principal Investigator. Predicting Value of Helical Computed Tomography in the Detection of Pulmonary Embolism Following Joint Replacement Surgery. Pfizer. Collaborator(s): Geerts W, Mahomed N, Salonen D. 25,000 CAD. [Grants]

# PEER-REVIEWED PUBLICATIONS

#### Journal Articles

- Woodhouse L, Gandhi R, Warden SJ, Poiradeau S, Myers SL, Benson CT, Hu L, Ahmad QI, Linnemeier P, Gomez EV, Benichou O. A phase 2 randomized study investigating the efficacy and safety of myostatin antibody LY2495655 versus placebo in older patients undergoing elective total hip arthroplasty. Journal of Frailty and Aging, Oct 2015, In press. Collaborator.
- Gandhi R, Weston A, Virtanen C, Takahashi M, Mahomed N, Perruccio, A
  Gene expression profiles of the subcutaneous fat and infrapatellar fatpads in
  individuals with early and endstage knee osteoarthritis: A cross-sectional
  analysis. Journal of Arthritis, Special Issue" Arthritis and Pain" 2015, In press.
  Principal Author.



- Gandhi R, Zywiel M, Mahomed NN, Perruccio AV. Depression and the overall burden of painful joints: an examination among individuals undergoing hip and knee replacement for osteoarthritis. Arthritis. 2015; 2015: 327161. Principal Author.
- Shulman R, Zyweil M, Gandhi R, Salonen D, Davey JR. Trunnionosis, The latest culprit in adverse reactions to metal debris following hip arthroplasty. Journal of Skeletal Radiology. 2015 Mar;44(3):433-40. Coauthor or Collaborator.
- Gandhi R, Kapoor M, Mahomed NN, Perruccio AV. A comparison of obesity related adipokine concentrations in knee and shoulder osteoarthritis patients. Obesity Research in clinical Practice. 2015 Sep; 9: 420-423. Senior Responsible Author.
- Abdallah FW, Chan VWS, Gandhi R, Koshkin A, Abbas S, Brull R. Analgesic Effects of Proximal, Distal, or No Sciatic Nerve Block on Posterior Knee Pain after Total Knee Arthroplasty: A Double¬blind Placebo-controlled Randomized Trial. Anesthesiology 2014 Dec; 121(6): 1302-10. Coauthor or Collaborator
- Vasheghani F, Zhang Y, Li Y, Blati M, Fahmi F, Lussier B, Roughley P, Lagares D, Lajeunesse D, Marshall WK, Rampersaud R, Mahomed NN, Gandhi R, Pelletier JP, Martel-Pelletier J, Kapoor M. PPARY deficiency results in severe, accelerated osteoarthritis associated with aberrant mTOR signaling in the articular cartilage. Annals of The Rheumatic Diseases. 2015; 74(3): 569-78. Coauthor or Collaborator.
- Modí CS, Veillette CJH, Perruccio AV, Gandhi R, Rampersaud YR. Modi CS, Veillette CJH, Perruccio AV, Gandhi R, Rampersaud YR. Factors that Impact the Choice to Undergo Surgery (FICUS) for shoulder and elbow conditions. Clin Orthop Relat Res. 2014 Mar; 472 (3):883-91. Coauthor or Collaborator.
- Zywiel M, Perruccio AV, Prabhu A, Gandhi R. The influence of anaesthesia and pain management strategies on cognitive dysfunction after elective joint arthroplasty. Clin Orthop Relat Res. 2014 May; 472(5):1453-66. Senior Responsible Author.
- 10. Khan M, Ranawat A, Williams D, Gandhi R, ChoudorH, Parasu Nm Simunovic N, Ayeni OR. Relationship between the Alpha and Beta Angle in diagnosing CAM Type Femoroacetabular Impingement on the Frog Leg Lateral Radiographs. Knee Surgery and Aports Traumatology and Arthroscopy. July 2014 In Press. Coauthor or Collaborator.
- Byck, BA, Zywiel M, Mahomed A, Gandhi R, Perruccio AV, Mahomed NN. Clinical Factors and Patient Expectations in Orthopaedic Surgery. Expert Rev Med Devices. 2014 Jul; 11(4):403-15. Coauthor or Collaborator.
- Cretu D, Prassas I, Saraon P, Batruch I, Gandhi R, Diamandis EP, Chandran V. Identification of Psoriatic Arthritis Mediators in Synovial Fluid By Quantitative Mass Spectrometry. Clinic Proteomics 2014 Jul 1; 11(1): 27. Coauthor or Collaborator.
- 13. Vasheghani F, Zhang Y, Li Y, Blati M, Fahmi F, Lussier B, Roughley P, Lagares D, Lajeunesse D, Marshall WK, Rampersaud R, Mahomed NN, Gandhi R, Pelletier JP, Martel-Pelletier J and Kapoor M. Cartilage- Specific Ppary-Deficient Mice Exhibit Accelerated Osteoarthritis associated with defective mTOR and autophagy signaling. Annals of The Rheumatic Diseases Accepted Oct 2014. Coauthor or Collaborator.
- Lau R, Perruccio A, Evans HMK, Mahomed NN, Mahomed S, Gandhi R. Stem cell therapy for the treatment of early stage avascular necrosis of the femoral head: A systematic Review. BMC Muscoskeletal. 2014 May; 15: 156.Senior Responsible Author.



- Cretu D, Prassas I, Saraon P, Batruch I, Gandhi R, Diamandis EP, Chandran V. Identification of Psoriatic Arthritis Mediators in Synovial Fluid By Quantitative Mass Spectrometry. Clinical Proteomics. Accepted May 2014. Coauthor or Collaborator.
- Ayeni OR, Chan K, Whelan DB, Gandhi R, Williams D, Harish S, Choudur H, Chiavara MM, Karlsson J, Bhandari M. Diagnosing Femoroacetabular Impingement form Plain Radiographs: Do Radiologists and Orthopaedics Surgeons Differ? The Orthopaedic Journal of Sports Medicine. 2014 July; 2(7). Coauthor or Collaborator.
- Li R, Nauth A, Gandhi R, Syed K, Schemitsch EH. BMP-@ mRNA expression after endothelial progenitor cell therapy for fracture healing. Journal of Orthopaedic Trauma. 2014 Apr; Supplemental Volume 1:s24-7. Coauthor or Collaborator.
- Gandhi R, Perruccio AV, Mahomed NN. Surgical Management of Hip Osteoarthritis. Canadian Medical Association Journal; 186(5): 347-55. 2014 Mar. Senior Responsible Author.
- Perruccio AV, Mahomed NN, Chandran V, Gandhi R. Multiple Symptomatic Joint Involvement and Plasma Levels of Adipokines in Hip and Knee Osteoarthritis. Journal of Rheumatology 2014 Feb; 41(2): 334-337. Senior Responsible Author.
- Leroux T, Ogilvie-Harris D, Dwyer T, Chahal J, Gandhi R, Mahomed NN, Wasserstein D. The risk of knee arthroplasty following cruciate ligament reconstruction: A population-based matched cohort study. The Journal of Bone & Joint Surgery 2014 Jan; 96(1): 2-10. Coauthor or Collaborator.
- 21. Gandhi R, Woo K, Zywiel M, Rampersaud R. Metabolic Syndrome Increases the risk of prevalent spine osteoarthritis. Orthopaedic Surgery 2014; 6: 23-27. Principal Author.
- 22. Rampersaud YR, Lewis SJ, Davey JR, Gandhi R, Mahomed NN. Comparative Outcomes and the Cost-Utility following Surgical Treatment of Focal Lumber Spinal Stenosis Compared with Osteoarthritis of the Hip or Knee: Part 1. Long-term Change in Health-Related Quality of Life. Spine Journal; 2014; 14(2): 234-43. Coauthor or Collaborator.
- 23. Zywiel M, Perruccio A, Gandhi R, Mahomed NN. Measuring expectations in Orthopaedic Surgery: A systematic review. Clinical Orthopaedic Related Research 2013; 471(11): 3446-56. Coauthor or Collaborator.
- Gandhi R, Santone D, Takahashi M, Dessouki O, Mahomed NN.
   Inflammatory Predictors of Ongoing Pain Two Years Following Knee
   Replacement Surgery. The Knee 2013 Sep; 20: 316-318. Principal Author.
- Khoshbin A, Leroux T, Wasserstein D, Marks P, Theodoropoulos J, Ogilvie-Harris D, Gandhi R, Kirat T, Lum G, Chahal J. The efficacy of platelet-rich plasma in the treatment of symptomatic knee osteoarthritis: A symptomatic review with quantitative synthesis. Arthroscopy: The Journal of Arthroscopic and Related Surgery 2013 Sep; 29 (12): 2037-48. Coauthor or Collaborator.
- Wasserstein D, Farlinger C, Brull R, Briggs N, Muir O, Mahomed N, Gandhi R. Advanced age, obesity and continuous catheter femoral nerve blockade are independent risk factors for post-operative falls, following primary total knee replacement. Journal of Arthroplasty 2013 Sep; 28(7): 1121-4. Senior Responsible Author.
- Gandhi R, Perruccio AV, Rizek R, Dessouki O, Evans HMK, Mahomed NN. Obesity related Adipokines predict patient reported shoulder pain. Obesity Facts 2013 Jul; 6: 536-541. Principal Author.
- 28. Albrecht E, Morfey D, Chan V, Gandhi R, Koshkin A, Chin KJ, Robinson S, Frascaolo P, Brull R. "Single-shot or continuous infusion femoral nerve



- blockade for total knee arthroplasty? A randomized, placebo-controlled, double blind trial." Perioperative pain management in orthopaedic surgery (Dr. Stavros Memtsoudis- Guest Editor). Clinical Orthopaedics and Related Research. 2013 Jun. In Press. Coauthor or Collaborator.
- Perlas A, Kirkham K, Billing R, Tse C, Gandhi R, Chan V. The impact of analgesic modality on early ambulation following total knee arthroplasty. Regional Anaesthesia and Pain Medicine 2013; 38(4): 334-349. Coauthor or Collaborator.
- Rampersaud R, Lewis SJ, Gandhi R, Davey JR, Mahomed NN. Long-term (Minimum 5-year) assessment of health related quality of health related quality of life after surgical treatment of focal symptomatic spinal stenosis compared with osteoarthritis of the hip or knee. Spine. 2013 May. In Press. Coauthor or Collaborator.
- 31. Gandhi R, Evans HMK, Mahomed S, Mahomed NN. Does Tranexamic Acid Reduce Blood Loss In Total Knee and Hip Arthroplasty? A Meta-Analysis. BMC Res Notes 2013 May; 6:184. Principal Author.
- 32. Hamer H, Gandhi R, Wong S, Mahomed N. Predicting, return-to-work following interdisciplinary treatment of chronic pain disorder. Occupational Medicine London 2013; 63(4): 253-9. Co-Principal Author.
- 33. Wasserstein D, Dwyer T, Gandhi R, Austin P, Mahomed N, Ogilvie-Harris D. A matched cohort population study of re-operation after meniscal repair with and without concomitant anterior cruciate ligament reconstruction. American Journal of Sports Medicine 2013; 41(2): 349-55. Coauthor or Collaborator.
- Hansen H, Taylor-Gjevre R, Obaid H, Gandhi R, King A. "Femoroacetabular impingement: A consideration in younger adults with hip pain". Canadian Medical Association Journal 2013 Nov; 185(16):1419-24. Coauthor or Collaborator.
- Wasserstein D, Dwyer T, Gandhi R, Veillette C, Mahomed NN, Ogilvie-Harris D. Predictors of redislocation and revision after shoulder instability surgery in Ontario 2003-2008. American Journal of Sports Medicine 2013; 41(9): 2034-40. Coauthor or Collaborator.
- Wasserstein D, Khoshbin A, Dwyer T, Chahal J, Gandhi R, Mahomed NN, Ogilvie Harris D. Risk factors for Recurrent Anterior ligament Reconstruction: A population Study in Ontario, Canada with 5- Year Follow-up. American Journal of Sports Medicine 2013; 41(9): 2099-107. Coauthor or Collaborator.
- Connor AM, Mahomed N, Gandhi R, Keystone EC, Berger SA. Tumor Necrosis Factor-Alpha modulates protein degradation pathways in RA synovial fibroblasts. Arthritis Research & Therapy 2013; 14(2): Coauthor or Collaborator.
- 38. Gandhi R, Perruccio A, Rampersaud YR. Influence of patient perceptions on willingness to undergo elective musculoskeletal surgery. Patient preference and adherence 2013; 7:191-197. Principal Author.
- Perruccio A, Gandhi R, Rampersaud YR. Heterogeneity in health status and the influence of patient characteristics across patients seeking musculoskeletal care - A cross-sectional study journal. BMC Musculoskeletal Disorders 2013: 14:83. Co-Principal Author.
- 40. Gandhi R, Perruccio AV, Rampersaud YR. Predictors of willingness to undergo elective musculoskeletal surgery. Patient Preference and adherence 2013; 7:191-197. Principal Author.
- 41. Ayeni OR, Peterson D, Chan K, Javidan A, Gandhi R. Suture vs. Arrow Repair for Meniscus Tears of the knee: A systematic Review. Journal of Knee Surgery 2012; 25(5): 397-402. Senior Responsible Author.



- 42. Gandhi R, Takahashi M, Rizek R, Dessouki O, Mahomed N. Obesity related Adipokines and Shoulder Arthritis. Journal of Rheumatology 2012; 39(10): 2046-8. Principal Author.
- 43. Kowalczuk M, Bhandari M, Farrokyar F, Wong I, Chahal M, Neely S, Gandhi R, Ayeni OR. Complications following hip arthroscopy: A systematic review and meta-analysis. Knee Surgery, Sports Traumatology, Arthroscopy, Official Journal of the ESSKA 2013; 21(7): 1669-75. Co-Principal Author.
- 44. Smith HN, Bhandari M, Mahomed NN, Jan M, Gandhi R. Comparison of Arthroplasty Trial Publication after Registration in ClincalTrials.gov. Journal of Arthroplasty 2012; 27(7): 1283-1288. Senior Responsible Author.
- Lau R, Gandhi R, Mahomed NN. Patient satisfaction after total knee and hip arthroplasty. Clinical Geriatric Medicine 2012; 28(3) 349-65. Co-Principal Author.
- Lau R, Gandhi, R, Mahomed S, Mahomed NN. Patient Satisfaction Following Total Knee and Hip Arthroplasty - Review. Clinics in Geriatric Medicine 2012; 28(3): 349-65. Co-Principal Author.
- Lau RL, Perruccio AV, Gandhi R, Mahomed NN. The role of surgeon volume on patient outcome in total knee arthroplasty: A systematic review of the literature. BMC Musculoskeletal Disorders 2012; 13:250. Coauthor or Collaborator.
- Chahal J, Tomescu S, Ravi B, Bach BR, Ogilvie-Harris DJ, Mahomed NN, Gandhi R. Publication of sports medicine randomized controlled trials registered in ClinicalTrials.gov. American Journal of Sports Medicine 2012; 40(9): 1970-7. Senior Responsible Author.
- Gandhi R, Salonen D, Geerts W, Khanna M, McSweeney S, Mahomed NN. A pilot study of CT detected asymptomatic pulmonary filling defects following hip and knee arthroplasty. Journal of Arthroplasty 2012; 27(5): 730 - 735. Principal Author.
- Perruccio A, Power DJ, Evans H, Mahomed S, Gandhi R, Mahomed N, Davis A. Multiple joint involvement in total knee replacement for osteoarthritis -Effects on patient-reported outcomes. Arthritis Care and Research (Hoboken) 2012; 64(6):838-46. Coauthor or Collaborator.
- 51. Rampersaud YR, Wai EK, Fisher CG, Yee AJ, Dvorak MF, Finklestein JA, Gandhi R, Abraham EP, Lewis SJ, Alexander DI, Oxner WM, Davey JR, Mahomed N. Post-operative improvement in health- related quality of life; a national comparison of surgical treatment for focal(one to tow level) lumbar spinal stenosis compared with total joint arthroplasty for osteoarthritis. Spine Journal 2011; Nov. 11(11): 1033-41. Coauthor or Collaborator.
- Smith HN, Jan M, Mahomed NN, Davey JR, Gandhi R. Meta-Analysis and Systematic review of clinical outcomes comparing mobile bearing and fixed bearing total knee arthroplasty. Journal of Arthroplasty 2011; 26(8): 1205 -1213. Senior Responsible Author.
- Mahomed NN, Gandhi R, Daltroy L, Katz N. Validation of satisfaction scale for hip and knee arthroplasty. Arthritis 2011; 6 Pages. Co-Principal Author.
- 54. Gandhi R, Jan M, Smith HN, Mahomed N, Bhandari M. Comparison of Published Orthopaedic Trauma Trials Following Registration In Clinic Trials. Gov. BMC Musculoskeletal Disease 2011; 12: 278. Principal Author.
- Gandhi R, Takahashi M, Virtanen C, Syed KA, Davey JR, Mahomed NN. Microarray analysis of the infrapatellar fat pad in knee OA: Implications for the relationship to Joint Inflammation. Journal of Rheumatology 2011; 38(9): 1966-1972. Principal Author.



- 56. Antapur P, Mahomed NN, Gandhi R. Fractures in the elderly: When is hip replacement a necessity? Clinical Interventions in Aging. 2011; 6: 1-7. Senior Responsible Author.
- Gandhi R, Smith H, Lefaivre K, Davey JR, Mahomed NN. Complications Following Minimally Invasive Total Knee Replacement as Compared to Traditional Incision Techniques: A Meta-Analysis. Journal of Arthroplasty. 2011; 26(1): 29-35. Principal Author.
- 58. Alzahrani K, Gandhi R, deBeer J, Petruccelli D, Mahomed NN. Prevalence of no clinically significant improvement following total knee arthroplasty. Journal of Rheumatology. 2011; 38: 753-9. Co-Principal Author.
- 59. Dessouki O, Mahomed NN, Gandhi R. Metabolic Abnormality and the proinflammatory state following hip joint surgery. International journal of clinical rheumatology. 2011; 6: 347-358. Senior Responsible Author.
- 60. Gandhi R, Smith H, Mahomed NN, Rizek R, Bhandari M. Incorrect use of the Student's t-test in randomized trials of bilateral hip and knee replacement patients. Journal of Arthroplasty. 2011; 26: 811-816. Principal Author.
- Kidane B, Gandhi R, Sarro A, Valiante T, Harvey B, and Rampersaud YR. Referral to a spine surgeon, a double-edged sword: Patient concerns prior to consultation. Canadian Family Physician. 2011; 57: 803-810. Co-Principal Author.
- Brull R, Prasad GA, Gandhi R, Ramlogan R, Khan M, Chan VW. Is a patella motor response necessary for continuous femoral nerve blockade performed in conjunction with ultrasound guidance? Anesthesia and Analgesia. 2011; 112: 982-6. Coauthor or Collaborator.
- 63. Gandhi R, Takahashi M, Syed K, Davey JR, Mahomed NN. The relationship between body habitus and leptin in a knee osteoarthritis population. Journal of Orthopedic Research. 2010; 28(3): 329-333. Principal Author.
- 64. Gandhi R, Dhotar H, deBeer J, Davey JR, Mahomed NN. Patient expectations of contralateral joint replacement surgery. Current Orthopedics 2010; 21(1): 67-70. Principal Author.
- 65. Gandhi R, Dhotar H, Razak F, Tso P, Davey JR, Mahomed NN. Predicting longer term outcomes in total knee arthroplasty. The Knee. 2010; 17: 15-18. Principal Author.
- 66. Gandhi R, Razak F, Davey JR, Rampersaud YR, Mahomed NN. Effects of sex and living arrangement on the timing and outcome of joint replacement surgery. Canadian Journal of Surgery. 2010; 53(1): 37-41. Principal Author.
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- 70. Gandhi R, Razak F, Tso P, Davey JR, Mahomed NN. Metabolic Syndrome and the Functional Outcomes of hip and knee arthroplasty. Journal of Rheumatology. 2010; 37: 1917-1922. Principal Author.
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- 73. Al zahrani K, Gandhi R, Davis A, Mahomed NN. In-hospital Mortality following hip fractures in Southern Ontario. Canadian Journal of Surgery. 2010; 53: 294-298. Co-Principal Author.
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# NON-PEER-REVIEWED PUBLICATIONS

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# PRESENTATIONS AND SPECIAL LECTURES

#### INTERNATIONAL INVITED LECTURES

- Osteoarthritis Phenotypes and Treatment Response: Role of Big Data. The
  University of Chicago Medicine and Biological Sciences, Department of
  Orthopaedic Surgery And Rehabilitation Medicine, Chicago, Wisconsin,
  United States.
- Minimizing blood loss in joint replacement surgery: The tranexamic acid story. Combined meeting of the Auckland City, Middlemore, North Shore, and Starship Hospitals. Auckland, New Zealand.
   2015 May
- Pioneering Therapy of Autologous Mesenchymal Stem Cells in Osteoarthritis, University of Christchurch, Otago, Christchurch, New Zealand.
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- Pioneering Therapy of Autologous Mesenchymal Stem Cells in Osteoarthritis,
   Children's Hospital at Westmead, Sydney, Australia.
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   The Australian College of Surgeons, Melbourne, Australia.
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- Pioneering Therapy of Autologous Mesenchymal Stem Cells in Osteoarthritis, Fiona Stanley Hospital, Perth, Australia.
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- Osteoarthritis takes its place in the Metabolic Syndrome, University of Glasgow, Scotland, U.K.
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- Minimizing blood loss in joint replacement surgery: The tranexamic acid story. Combined Services Orthopaedic Society Meeting, Fenham Barracks, Newcastle Upon Tyne, U.K.
- Patient Specific Surgery Biological Considerations in Surgical Outcomes Research Hexham General Hospital, Northumbria NHS trust, Hexham, U.K.
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- Patient Specific Surgery Biological Considerations in Surgical Outcomes Research, University of Edinburgh, Scotland, U.K.
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- Patient Specific Surgery Biological Considerations in Surgical Outcomes Research. 25th Annual Seddon Society Meeting. Royal National Orthopedic Hospital, Stanmore, Middlessex. U.K.
- Osteoarthritis takes its place in the Metabolic Syndrome, Royal London and St Bartholomew's Hospital, London, U.K.
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- Pioneering Therapy of Autologous Mesenchymal Stem Cells in Osteoarthritis, Norfolk and Norwich University Hospital, Norwich, U.K. 2015 April
- Patient Specific Surgery Biological Considerations in Surgical Outcomes Research. Combined meeting of University of Leicester and University of Nottingham. National Center for Sports and Exercise Medicine of University of Loughborough. Leicester, U.K.
- Patient Specific Surgery Biological Considerations in Surgical Outcomes Research. Institute of Sport, Exercise and Health, University College London, London, United Kingdom

#### **Abstracts and Other Papers**

- Systemic inflammation and painful joint burden in osteoarthritis: a matter of sex. OARSI World Congress on Osteoarthritis. Seattle, WA, United States. Perruccio AV, Chandran V, Kapoor M, Power JD, Gandhi R. Peer-Reviewed (Poster).
- A retrospective, sequential cohort study of peri-neural steroids for chronic post-traumatic neuropathic pain in the foot.. International Congress on Neuropathic Pain. Bhatia A, Lau JL, Alvi S, Mahomed NN, Peng P, Gandhi R, Davis A Nice, France. Peer-reviewed (poster).
- Topical Tranexamic Acid in TKA Lowers Transfusion Rates And Hospital Costs Without Raising Thromboembolic Events. 2015 American Academy of Orthopaedic Surgeons Annual Meeting. Las Vegas, Nevada, USA. Zywiel MG, Jan Z, Perruccio AV, Rampersaud YR, Davey JR, Evans L, Prabhu A, Gandhi R. Peer-reviewed (Poster).
- Decreased Transfusion Rates And Hospital Resource Utilization With Routine Topical Tranexamic Acid Use In THA. American Academy of Orthopaedic Surgeons. Las Vegas, Nevada, United States. Zywiel MG, Jan Z, Perruccio AV, Rampersaud YR, Davey JR, Evans L, Prabhu A, Gandhi R. Peer-Reviewed (Podium)
- Topical Tranexamic Acid In TKA Lowers Transfusion Rates And Hospital
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- Adults With Down Syndrome Have Unique Hip Morphology Compared To Matched Controls And Published Normal Values. American Academy of Orthopaedic Surgeons. Las Vegas, Nevada, United States. Zywiel MG, Shulman R, Zochowski T, Gandhi R, Salonen D, Gross AE. Peer-Reviewed (Poster).
- Trunnionosis: the latest culprit in adverse reactions to metal debris following hip arthroplasty. American Association of hip and knee surgeons (AAHKS) Dallas, TX.
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- Relationship between the Alpha and Beta Angle in diagnosing CAM type Femoroacetabular Impingement on the Frog Legs lateral radiographs. ISHA Annual Meeting. Rio de Janeiro, Brazil. Khan M, Ranawat A, Williams D, Gandhi R, Choudor H, Parasu N, Simunovic N, Ayeni OR. Peer-reviewed (Poster).
- Diagnosing Femoroacetabular Impingement from plain radiographs: Do Radiologists and Orthopaedic Surgeons Differ? Arthroscopic Association of North America Annual Meeting. Hollywood, Florida, U.S. Ayeni, OR, Chan K, Whelan D, Gandhi R, Williams D, Harish S, Choudor H, Chiavraras M, Karlsson J, Bhandari M, Peer-reviewed (Poster)
- The negative influence of multiple symptomatic joint involvement on patient-reported outcomes following TJR for OA can last up to 5 years. OARSI World Congress on Osteoarthritis. Paris, France. Perruccio AV, Gandhi R, Badley EM, Mahomed NN, Power JD, Davis AM. Peer-reviewed (Poster). 2014 Apr
- Depression and overall burden of symptomatic joints: an examination among individuals undergoing hip and knee replacement for osteoarthritis. OARSI World Congress on Osteoarthritis. Paris, France. Gandhi R, Bugg AC, Zywiel MG, Mahomed NN, Perruccio AV. Peer-reviewed (Poster).
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- Multiple Symptomatic Joint Involvement and Plasma levels of Adipokines in Hip and Knee Osteoarthritis. The Hip Society. Charleston, South Carolina, United States. Perruccio AP, Mahomed NN, Chandran V, Gandhi R. Peerreviewed (Podium).
- Proteomic Profiling of synovial fluid for the identification of psoriatic arthritis soluble biomarkers. ACR/ARHP Annual Meeting. San Diego, California, United States. Cretu D, Pellett F, Gandhi R, Diamandis E, Chandran V. Cretu D, Pellett F, Gandhi R, Diamandis E, Chandran V. Peer-reviewed (Poster).
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- Comorbid Lung Disease in Osteoarthritis. Annual Meeting of the American College of Epidemiology. Louisville, Kentucky, United States. Perruccio AV, Mahomed NN, Veillette C, Gandhi R. Peer-reviewed (Poster).
- Comorbid lung disease in osteoarthritis. American College of Epidemiology.
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- Complications Following Hip Arthroscopy: A Systemic Review and Metaanalysis. Arthroscopy Association of North America. (AANA). San Antonio, Texas, USA. Kowalczuk M, Bhandari M, Farrokhyar F, Wong I, Chahal M, Neely S, Gandhi R, Ayeni OR. Peer- reviewed (Poster). 2013 Apr
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- Determinants of the likelihood of returning to work in a chronic pain population. International Conference on Health, Wellness and Society. Chicago, Illinois, United States. Hamer H, Gandhi R, Wong S, Yak A, Mahomed, N. Peer-reviewed (Podium).
- Role of Surgeon Experience on Outcomes of Total Knee Replacement. Knee Society Open Meeting. San Francisco, California, United States. Mahomed NN, Lau R, Gandhi R. Peer-reviewed (Podium).
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- Metabolic relationship between Obesity and OA. Segal North American Osteoarthritis Workshop. Chicago, Illinois, United States. Peer-reviewed (Podium).
- The Synovial Fluid adiponectin-leptin ratio predicts pain with knee osteoarthritis.
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- Microarray analysis of the Infrapatellar fat pad in Knee OA: Implications for the relationship to Joint Inflammation. (Knee Reconstruction). American Academy of Orthopaedic Surgeons. San Diego, California, United States.



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- Intra-articular Application of Tranexamic Acid for Perioperative Blood Loss in Total Knee Arthroplasty: A Randomized-Controlled Trial. The Knee Society-Member Meeting. Boston, Massachusetts, United States. Chan J, Mahomed NN, Davey JR, Syed KA, Gandhi R, Cheung F. Peer-reviewed (Podium).
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# NATIONAL ABSTRACTS AND OTHER PAPERS

- Inflammatory Predictors of ongoing pain two years following knee replacement surgery. Canadian Arthroplasty Society (CAS). Gandhi R. Santone D, Takahashi M, Dessouki O, Mahomed N. Ottawa, Ontario, Canada. Peer-reviewed (Podium).
- Adipokine Profile of Synovial Fluid in End-Stage Knee Osteoarthritis An investigation across racial groups. 2015, 3rd World Congress on Controversies, debates and Consensus in Bone, Muscle & Joint Diseases (BMJD). Woodhouse L, Warden S, Poiraudeau S, Myers S, Benson C, Hu L,



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- Metabolic Syndrome Is Not Independently Associated With Complications Following Lumbar Spine Fusion. Canadian Orthopaedics Association.
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- Similar Efficacy and Safety Of Prophylactic Rivaroxaban Compared To Low Molecular Weight Heparin After TJA. Canadian Orthopaedics Association, Vancouver, British Columbia, Canada. Zywiel M, Naderipour A, Mahomed NN, Davey JR, Syed KA, Gandhi R. Peer-reviewed (Podium).
- Adults with Down Syndrome Have Unique Hip Morphology Compared To Matched Controls And Published Normal Values. Canadian Orthopaedics Association, Vancouver, British Columbia, Canada Zywiel M, Shulman D, Zochowski T, Gandhi R, Salonen D, Gross A. Peer-reviewed (Poster).
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- Sharma A, Sundararajan K, Perruccio AV, Kapoor M, Gandhi R. Adipokine profile of synovial fluid in end-stage knee osteoarthritis - an investigation across racial groups. 3rd World Congress on Controversies, Debates & Consensus in Bone, Muscle & Joint Diseases, April 23-26, 2015, Montreal, PQ, CAN. Peer-reviewed (Poster)
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- Comparative Outcomes and Cost-Utility Following Surgical Treatment of Focal Lumbar Spinal Stenosis Compared with Osteoarthritis of the Hip or Knee: Long- Term Change in Health-Related Quality of Life and Lifetime Incremental Cost-Utility. Combined Meeting of the American Orthopaedic Association and Canadian Orthopaedic Association. Montreal, QC, Canada.



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  K, Mahomed NN, Rampersaud YR. Peer- reviewed (Poster). 2014 Jun
- Depression and overall burden of symptomatic joints: an examination among individuals undergoing hip and knee replacement for osteoarthritis.
   Combined Meeting of the American Orthopaedic Association and Canadian Orthopaedic Association. Montreal, QC, Canada. Gandhi R, Bugg AC, Zywiel MG, Mahomed NN, Perruccio AV. Peer- reviewed (Poster).
- The influence of obesity and low education on health-related quality of life: A
  contrast between individuals with foot/ankle and knee OA. Combined
  Meeting of the American Orthopaedic Association and Canadian Orthopaedic
  Association. Montreal, PQ, Canada. Perruccio AV, Gandhi R, Lau JTC, Syed
  K, Mahomed NN, Rampersaud YR. Peer- reviewed (Poster). 2014 Jun
- Depression and overall burden of symptomatic joints: an examination among individuals undergoing hip and knee replacement for osteoarthritis.
   Combined Meeting of the American Orthopaedic Association and Canadian Orthopaedic Association. Montreal, QC, Canada. Gandhi R, Bugg AC, Zywiel MG, Mahomed NN, Perruccio AV. Peer- reviewed (Podium).
- Multi-joint osteoarthritis is associated with increased in-hospital resource
  utilization for patients undergoing total hip arthroplasty Combined Meeting of
  the American Orthopaedic Association and Canadian Orthopaedic
  Association. Montreal, QC, Canada. Zywiel M, Djelic D, Chaudhary R,
  Rampersaud YR, Gandhi R, Mahomed NN, Perruccio AV. Peer-reviewed
  (Poster).
- Routine topical tranexamic acid use in knee arthroplasty reduces transfusion rates without increased risk of venous thromboembolic events. Combined Meeting of the American Orthopaedic Association and Canadian Orthopaedic Association. Montreal, QC, Canada. Zywiel M, Jan M, Perruccio AV, Rampersaud YR, Evans HMK, Prabhu A, Gandhi R. Peer-reviewed (Poster).
- The impact of gastric bypass surgery compared to TKA on knee symptoms.
   Combined Meeting of the American Orthopaedic Association and Canadian Orthopaedic Association. Montreal, QC, Canada. Zywiel M, Okrainec A, Jackson T, Kassam H, Perruccio AV, Penner T, Urbach D, Gandhi R. Peerreviewed (Podium).
- The routine use of topical tranexamic acid in total hip arthroplasty provides clinical and economic benefits without increasing the incidence of venous thromboembolic events. Combined Meeting of the American Orthopedic Association and Canadian Orthopaedic Association. Montreal, QC, Canada. Zywiel M, Jan M, Perruccio AV, Rampersaud YR, Evans HMK, Prabhu A, Gandhi R. Peer-reviewed (Podium).
- Multi-joint Arthritis Is Associated With Increased Health Resource Utilization For Patients Undergoing TKA. Combined Meeting of the American Orthopaedic Association and Canadian Orthopaedic Association; June 18-



- 21,2014, Montreal, QC, Canada. Zywiel M, Chaudhary R, Rampersaud YR, Gandhi R, Mahomed NN, Perruccio AV. Peer-reviewed (Podium). 2014 Jun
- Biological Considerations in clinical outcomes research: Understanding the role of Inflammation and OA phenotypes. McMaster University, Grand Rounds Invited Speaker. Hamilton, Ontario, Canada. Non peer-reviewed (Podium).
- Relationship between the Alpha and Beta angle in diagnosing femoroacetabular Impingement. Clinical Epidemiology and Biostatistics research day. Hamilton, Ontario Khan M, Ranawat A, Williams D, Gandhi R, Choudur H, Parasu N, Simunovic N, Ayeni OR.Peer-reviewed (Poster)
- Factors Associated with Return-to-Work following Work-Related Foot and Ankle Injuries. GTA Rehab Network's Best Practices Day. Toronto, Ontario, Canada. Gandhi R, Yak A, Wong S, Veljkovic A, Lau J Peer-reviewed (Poster).
- Risk Factors for Revision Anterior Cruciate Ligament Reconstruction in Ontario - A population based study with 5 Year Follow-up. Canadian Orthopaedics Association. Winnipeg, Manitoba, Canada. Koshbin A, Wasserstein D, Dwyer T, Gandhi R, Mahomed NN, Ogilvie-Harris D. Peerreviewed (Poster).
- A population-based matched cohort study of total knee arthroplasty following cruciate ligament reconstruction. Canadian Orthopaedics Association.
   Winnipeg, Manitoba, Canada. Peer-reviewed (Poster).
- Shoulder dislocation in Ontario, Canada from 1994 to 2011: The incidence, rate, and risk factors for recurrence. Canadian Orthopaedics Association.
   Winnipeg, Manitoba, Canada. Leroux T, Wasserstein D, Gandhi R, Veillette C, Mahomed N, Ogilvie-Harris D. Peer- reviewed (Podium).
- A Prospective Study of Asymptomatic Pulmonary Embolism and after Hip and Knee Arthroplasty. Canadian Arthroplasty Society. London, Ontario, Canada. McSweeney S, Syed K, Davey JR, Mahomed NN, Gandhi R. Peerreviewed (Podium).
- The effect of topical tranexamic acid on blood loss on transfusion in total joint arthroplasty. Canadian Arthroplasty Society. London, Ontario, Canada. Peerreviewed (Podium).
- Determinants of the likelihood of returning to work in a chronic pain population. Canadian Agency for drugs and technologies in Health Symposium. "Evidence Matters: Outcomes, Efficiency, Impact". Ottawa, Ontario, Canada. Hamer H, Gandhi R, Wong S, Yak A, Mahomed NN. Peerreviewed (Poster).
- A Prospective Study of Asymptomatic Pulmonary Embolism after Hip and Knee Arthroplasty. Canadian Orthopaedic Association (COA). St. John's, Newfoundland and Labrador, Canada. Gandhi R, Salonen D, Geerts WH, Khanna M, McSweeney S, Syed K, Davey JR, Mahomed NN. Peer-reviewed (Podium).
- Advanced Age, Obesity and Continuous Catheter Femoral Nerve Blockade are Independent Risk Factors for Post-operative Falls Following Primary Total Knee Replacement. Canadian Orthopaedic Association. St. John's, Newfoundland and Labrador, Canada. Farlinger C, Wasserstein D, Brull R,



Briggs N, Muir O, Mahomed NN, Gandhi R, Peer-reviewed (Podium).

- Evaluating a Case Series. Instruction Course Lecture: Evidence Based Orthopaedics. Canadian Orthopaedic Association (COA). St. John's, Newfoundland and Labrador, Canada. Peer-reviewed (Podium) 2011 Jul
- Meta-analysis and Systematic Review of Clinical Outcomes Comparing
  Mobile-bearing and Fixed-bearing Total Knee Arthroplasty. Canadian
  Orthopaedic Association. St. John's, Newfoundland and Labrador, Canada.
  Gandhi R, Smith H, Jan M, Davey JR, Mahomed NN, Peer-reviewed
  (Podium).
- Obesity and Knee arthroplasty. Instruction Course Lecture: Evidence Based Orthopedics. Canadian Orthopaedic Association (COA). St. John's, Newfoundland and Labrador, Canada. Peer-reviewed (Podium).
- Predictors of Complications and Re-operation after Knee Cruciate Ligament Reconstruction in Ontario 1992-2008. Canadian Orthopaedic Association. St. John's, Newfoundland and Labrador, Canada. Wasserstein D, Gandhi R, Mahomed NN, Ogilvie- Harris D, Peer-reviewed (Podium). 2011 Jul
- Prevalence of Patients with No Clinically Significant Improvement Following Total Knee Replacement. Canadian Orthopaedic Association. St. John's, Newfoundland and Labrador, Canada. Alzahrani K, Gandhi R, deBeer J, Petruccelli D, Mahomed NN. Peer- reviewed (Podium).
- The Influence of Patient, Provider and Surgical Factors on Revision Anterior Cruciate Ligament Reconstruction (ACLR) in Ontario. Canadian Orthopaedic Association (COA). St. John's, Newfoundland and Labrador, Canada. Wasserstein D, Gandhi R, Mahomed NN, Ogilvie-Harris D, Peer-reviewed (Podium).
- A Prospective Study of Asymptomatic Pulmonary Embolism after Hip and Knee
- Arthroplasty. Canadian Orthopaedic Association. St. John's, Newfoundland and Labrador, Canada. Gandhi R, Salonen D, Khanna M, McSweeney S, Syed K, Davey JR, Mahomed NN, Peer-reviewed (Podium).
- Advanced Age, Obesity and Continuous Catheter Femoral Nerve Blockade are Rajiv Gandhi Independent Risk Factors for Post-operative Falls Following Primary Total Knee Replacement. Canadian Orthopaedic Association. St. John's, Newfoundland and Labrador, Canada. Farlinger C, Wasserstein D, Brull R, Briggs N, Muir O, Mahomed NN, Gandhi R, Peer-reviewed (Podium).
- Meta-analysis and Systematic Review of Clinical Outcomes Comparing
  Mobile-bearing and Fixed-bearing Total Knee Arthroplasty. Canadian
  Orthopaedic Association. St. John's, Newfoundland and Labrador, Canada.
  Gandhi R, Smith H, Jan M, Davey JR, Mahomed NN, Peer-reviewed
  (Podium).
- Predictors of Complications and Re-operation after Knee Cruciate Ligament Reconstruction in Ontario 1992-2008. Canadian Orthopaedic Association. St. John's, Newfoundland and Labrador, Canada. Wasserstein D, Gandhi R, Mahomed NN, OgilvieHarris D, Peer-reviewed (Podium). 2011 Jul
- Prevalence of Patients with No Clinically Significant Improvement Following Total Knee Replacement. Canadian Orthopaedic Association. St. John's,



- Newfoundland and Labrador, Canada. Alzahrani K, Gandhi R, deBeer J, Petruccelli D, Mahomed NN. Peerreviewed (Podium). 2011 Jul
- The Influence of Patient, Provider and Surgical Factors on Revision Anterior Cruciate Ligament Reconstruction (ACLR) in Ontario. Canadian Orthopaedic Association. St. John's, Newfoundland and Labrador, Canada. Wasserstein D, Gandhi R, Mahomed NN, Ogilvie-Harris D, Peer-reviewed (Podium).

Atypical Femur fractures and bisphosphonate use in a Canadian Tertiary
Care Academic Hospital. American Society for Bone and Mineral Research.
Toronto, Ontario, Canada. Cheung AM, Veillette C, Bleakney R, Syed K,
Young C, McDonald-Blumer H, Tile L, Cardew S, Gandhi R, Kapral M, Davey
JR. Mahomed NN. Ridout R. Peer- reviewed (Podium). 2010 Oct

- Microarray Analysis of the Pro-inflammatory Role of the knee Joint fat pad in osteoarthritis. Canadian Orthopaedic Association. Edmonton, Alberta, Canada. Gandhi R, Takahashi M, Virtanen C, Syed KA, Davey JR, Mahomed NN. Peer-reviewed (Podium).
- Predictors of an Improved Functional Outcome with In Patient rehab for Joint replacement patients. University of Toronto, Canadian Orthopaedic Association. Edmonton, Alberta, Canada. Rizek R, Gandhi R, Mahomed NN. Peer-reviewed (Podium).
- Complications Following minimally invasive total knee replacement as compared to traditional Incision Techniques: A Meta-Analysis. Canadian Orthopaedic Association. Edmonton, Alberta, Canada. Gandhi R, Smith H, Rizek R, Mahomed NN. Peer-reviewed (Podium).
- Metabolic Syndrome Increases the Risk of Prevalent Spine Osteoarthritis.
   Canadian Orthopaedic Association. Edmonton, Alberta, Canada. Gandhi R,
   Woo K, Mahomed NN, Rampersaud YR. Peer-reviewed (Podium). 2010 Jun
- Patient Concerns about Undergoing Elective Musculoskeletal Surgery.
   Canadian Orthopaedic Association. Edmonton, Alberta, Canada. Gandhi R,
   Hudak P, Syed KA, Veillette C, Davey JR, Mahomed NN, Rampersaud YR.
   Peer-reviewed (Podium).
- The synovial fluid Adiponectin-Leptin ratio predicts pain with knee osteoarthritis. Canadian Orthopaedic Association. Edmonton, Alberta, Canada. Gandhi R, Takahashi M, Smith H, Rizek R, Mahomed NN. Peerreviewed (Podium).
- Complications Following minimally invasive total knee replacement as compared to traditional Incision Techniques: A Meta-Analysis. Canadian Orthopaedic Association (COA). Edmonton, Alberta, Canada. Peer-reviewed (Podium).
- Metabolic Syndrome Increases the Risk of Prevalent Spine Osteoarthritis.
   Canadian Orthopaedic Association (COA). Edmonton, Alberta, Canada.
   Peer-reviewed (Podium).

  2010 Jun
- The synovial fluid Adiponectin-Leptin ratio predicts pain with knee osteoarthritis. Canadian Orthopaedic Association (COA). Edmonton, Alberta, Canada. Peer-reviewed (Podium).
   2010 Jun
- Defining Obesity in an Asian population undergoing knee and hip replacement. Canadian Orthopaedic Association (COA). Whistler, British Columbia, Canada. Razak F, Gandhi R, Davey JR, Mahomed NN. Peerreviewed (Poster).



- Ethnicity and patient's perception of risk in joint replacement surgery.
   Canadian Orthopaedic Association (COA). Whistler, British Columbia,
   Canada. Gandhi R, Razak F, Davey JR, Mahomed NN. Peer-reviewed
   (Poster).
- Predicting longer term outcomes in total knee arthroplasty. Canadian Orthopaedic Association (COA). Whistler, British Columbia, Canada. Gandhi R, Dhotar H, Razak F, Davey JR, Mahomed NN. Peer-reviewed (Podium). 2009 Jul
- Predicting Patient Dissatisfaction following Joint Replacement Surgery.
   Canadian Orthopedic Association (COA). Whistler, British Columbia,
   Canada. Gandhi R, Davey JR, Mahomed NN. Peer-reviewed (Poster).
   2009 Jul
- Antibiotic Bone Cement and the Incidence of Deep Infection following total knee arthroplasty. Canadian Orthopaedic Association (COA). Whistler, British Columbia, Canada. Gandhi R, Razak F, Davey JR, Syed K, Pathy R, Mahomed N. Peer-reviewed (Podium).
- Metabolic Syndrome and the Incidence of Symptomatic DVT following primary total knee arthroplasty. Canadian Orthopaedic Association (COA). Whistler, British Columbia, Canada. Gandhi R, Razak F, Tso P, Davey JR, Mahomed NN. Peer-reviewed (Podium).
- The relationship between body habitus and leptin in a knee osteoarthritis population. Canadian Orthopaedic Association (COA). Whistler, British Columbia, Canada. Gandhi R, Takahashi M, Syed K, Davey JR, Mahomed NN. Peer-reviewed (Podium).
- Limiting Bias in Clinical Trials. Instruction Course Lecture: Evidence Based Orthopedics. Canadian Orthopaedic Association (COA). Whistler, Alberta, Canada. Peer-reviewed (Podium).
- What's new in DVT prophylaxis? Stryker-Arthroplasty 2009. Whistler, British Columbia, Canada.
   2009 Feb
- What's the Evidence for Cross-Linked Polyethylene in Hips? Stryker-Arthroplasty 2009. Whistler, British Columbia, Canada.
   2009 Feb
- The Epidemiology of Cartilage Repair Techniques. CORS symposium:
   Articular Cartilage Repair: From Bench to Bedside to Books. Canadian
   Orthopaedic Association (COA). Quebec City, Quebec, Canada. Peerreviewed (Podium).
- Does Patient Perception of Alignment Affect Total Knee Arthroplasty
  Outcome? Canadian Orthopedic Association (COA). Montreal, Quebec,
  Canada. Gandhi R, de Beer J, Petruccelli D, Winemaker M. Peer-reviewed
  (Podium).
- Incidence and Timing of Myocardial Infarction Following Total Joint Replacement Surgery. Canadian Orthopaedic Association (COA). Montreal, Quebec, Canada. Gandhi R, Petruccelli D, Devereaux PJ, Adili A, Hubmann M, de Beer J. Peer-reviewed (Podium).
- Primary Total Knee Arthroplasty in Patients Receiving Workers'
  Compensation Benefits. Canadian Orthopaedic Association (COA).
  Winnipeg, Manitoba, Canada. De Beer J, Petruccelli D, Gandhi R,
  Winemaker M. Peer-reviewed (Podium).
- Primary Total Knee Arthroplasty in Patients Receiving Workers'
   Compensation Benefits. Canadian Orthopaedic Association (COA).



Winnipeg, Manitoba, Canada. de Beer J, Petruccelli D, Gandhi R, Winemaker M. Peer-reviewed (Poster). 2003 May

# LOCAL ABSTRACTS AND OTHER PAPERS

- Sex, Canadian Society for Epidemiology and Biostatistics 2015 Conference, June 1-4, 2015, Mississauga, ON, CAN. Perruccio AV, Power JD, Badley EM, Gandhi R.
- "Ortho-evidence" Journal Club: Arthroplasty Expert Panelist. Ontario
   Orthopaedic Association. Toronto, Ontario, Canada. (Podium).
   2014 Nov
- Case Presentations in Adult hip and knee reconstruction: Peri-prosthetic Fractures.Ontario Orthopaedic Association, Toronto, Ontario, Canada. (Podium).
- Complications Following Hip Arthroscopy: A Systematic Review and Meta¬analysis. ISAKOS Annual Meeting. Toronto, Ontario, Canada. Kowalczuk M, Bhandari M, Farrokhyar F, Wong I, Chahal M, Neely S, Gandhi R, Ayeni OR. Peer-reviewed (Poster).
- Surgical and post op Clinical Decision Making in the management of complex hip and knee joint replacements. Muscoskeletal Conference. Toronto, Ontario, Canada.
- Hip, Knee, Foot and Ankle Arthritis and their causes. University Health Network. Toronto, Ontario, Canada. Gandhi R, Lau J, Non peer-reviewed (Podium).
- Determinants of the likelihood of returning to work in a chronic pain population. Best Practices Day Conference. Toronto, Ontario, Canada. Hamer H, Gandhi R, Wong S, Yak A, Mahomed N, Peer-reviewed (Poster).
- Factors Associated with Return-to-Work following Work-Related Upper Extremity Injuries. University of Toronto Hand Surgery Research Day (Ralph Manktelow). Toronto, Ontario, Canada.
- Hip and Knee Arthroplasty for 2011. Smith and Nephew National Sales Meeting. Toronto, Ontario, Canada. Non peer-reviewed. 2011 Jan
- How to conduct a survey. Principles and Practice of Clinical Research.
   Mississauga, Ontario, Canada. Non peer-reviewed.
   2010 Nov
- Writing your paper for publication. Principles and Practice of Clinical Research. Mississauga, Ontario, Canada. Non peer-reviewed. 2010 Nov
- Oxinium THR for AVN. Hip health. Mississauga, Ontario, Canada. 2010 Sep
- Hip Impingement. Hip health. Mississauga, Ontario, Canada. 2010 Sep
- All you need to know in 2010 hip arthroplasty. Hip health. Mississauga, Ontario, Canada.
   2010 Sep
- Causation and Bias. HPME, University of Toronto. Ontario, Canada. 2010 Jul
- The Pro-inflammatory Role of the Infra-patellar fat pad in knee Osteoarthritis.
   MaRS Microarray Centre. Toronto, Ontario, Canada.
   2010 Jun
- Rivaroxaban the UHN Experience. Thrombosis in Musculoskeletal Rehabilitation. Toronto, Ontario, Canada.
   2010 Jan
- Bearing Surface Options: Total hip Arthroplasty. Hip Health. Mississauga, Ontario, Canada.
   2009 Sep



- Bias Detective. Principles and Practice of Clinical Research. Mississauga, Ontario, Canada.
   2009 Sep
- Outcomes Assessment. Principles and Practice of Clinical Research.
   Mississauga, Ontario, Canada.
- An approach to patients with hip pain. The Third University Health Network Musculoskeletal and Arthritis Day. Toronto, Ontario, Canada. 2009 Apr
- Timing of Joint Replacement Surgery in OA. The Third University Health Network Musculokeletal and Arthritis Day. Toronto, Ontario, Canada.
   2009 Apr
- Critical Appraisal: Observational Studies. Principles and Practice of Clinical Research. Mississauga, Ontario, Canada.
   2008 Nov
- Blood Loss in Revision Knee Replacement Surgery. Stryker Advances in Revision Knee Replacement Surgery. Toronto, Ontario, Canada. 2007 Oct
- DVT Prophylaxis in Total Joint Arthroplasty. Stryker Advances in Revision Knee Replacement Surgery. Toronto, Ontario, Canada.
   2007 Oct



# TAB 14.

# DR. RAJIV GHANDI – SAMPLE REPORT



#### TAB 15. DR. W. LATHAM - CV

# Warren CW Latham BScH MD FRCSC

101-240 Duncan Mill Road North York, Ontario M3B 3S6

Tel: 416-840-5990 ext. 24

Fax: 647-427-4100

Experts@AllevioClinic.com

EMPLOYMENT	
Southlake Regional Hospital	
Courtesy Staff Privileges	2011
Etobicoke General Hospital	
Clinical Associate: Temporary Privileges	2010
Toronto Western Hospital	
Clinical Associate: Division of Orthopedic surgery	2008 - Present
Scarborough Grace Hospital	
Active Staff: Division of Orthopedic surgery	2007 - Present
University of Toronto Orthopedic Clinical Fellow	
Toronto Western Hospital: Supervisor: Dr. Johnny Lau : Foot and	Ankle Surgery 2007
Toronto Western Hospital: Primary and Revision Adult Lower Extre	,
Reconstruction. Supervisors: Dr. Rod Davey, Dr. Nizar Mahomed	2006
Etobicoke General Hospital: Locum Privileges, on call coverage Scarborough Grace Hospital: Locum Privileges, on call coverage	2006 2006
	2006
University of Toronto Orthopedic Surgery Resident Knee & Shoulder Arthroscopy, Orthopedic and Arthritic Hospital. S	Supervisor:
Dr. Paul Marks	2005
Adult Foot & Ankle Reconstruction, Toronto Western Hospital. Sup	
Johnny Lau	2005
Pediatric Tumour/ Spine/ Foot and Ankle, Hospital For Sick Children	
Dr. Sevan Hopyan, Dr. Stephen Lewis, Dr. James Wright	2005
Orthopedic Trauma, Sunnybrook Health Sciences Centre. Supervi	•
Axelrod, Dr. Robin Richards, Dr. Hans Kreder, Dr. Albert Yee Orthopedic Trauma, St. Michael's Hospital. Supervisors: Dr. Jame	2004
Emil Schemitsch, Dr. Earl Bogoch	2004
Senior Arthroplasty, Toronto Western Hospital. Supervisor: Dr. Ro	
Musculoskeletal Tumour, Mount Sinai Hospital (Chief Resident). S	•
Jay Wunder	2003
Pediatric Orthopedics, Hospital For Sick Children. Supervisors: Dr Dr. Unni Narayanan	. William Cole, 2003
Upper and Lower limb Arthroscopy, Toronto Western Hospital. Su	pervisor: Dr.
Darrell Ogilvie Harris, Dr. Johnny Lau	2003
Orthopedic Trauma, St. Michael's Hospital. Supervisors: Dr Emil S Rod McBroom	Schemitsch, Dr. 2002



Adult Spine, Toronto Western Hospital, Supervisors: Dr. Rai Rampersaud, Dr. Stephen Lewis 2002 Hand, Toronto Western Hospital. Supervisors: Dr. Brent Graham, Dr. Herb Von Schroeder 2002 Rotating Internship. St. Michael's Hospital & Toronto East General Hospital 2001 Trauma Sub-Internship, Cedar-Sinai Hospital, Los Angeles, CA: Supervisor: Summer 2000 Research Assistant, Los Angeles Veterans Administration Hospital, Los Angeles, CA Supervisor: Dr. Mathew Goetz 1998 Jun - Aug Excursion Leader, Camp Outlook for High-Risk Youth (Algonquin Park, Ontario) Jun - Sep 1997 Volunteer, Queen's Medical Outreach to Guyana, South America A 3 month volunteer work term in Guyana, South America. Project: Malarial Survey Barima river region Jun - Sep 1996 Research Assistant, Pathology Department at Queen's University. Prethesis work on putative breast cancer tumour suppressor gene. Supervisor: Dr. Lois Mulligan

# **EDUCATION**

# Toronto Western Hospital

Clinical Fellowship, Division of Orthopedic Surgery Subspecialty Interest: Foot and Ankle deformity correction and Reconstruction

# **Toronto Western Hospital**

2006 - 2007

1.1.1.1 - 2008

Jun - Sep 1995

Clinical Fellowship, Division of Orthopedic Surgery Subspecialty Interest: Adult Hip and Knee Reconstruction; Primary and Revision Surgery

University of Toronto

Residency; Royal College Orthopedic Surgery Training Program.

2001 - 2006 1997 - 2001

Medical Doctorate, Faculty of Medicine

University of British Columbia's

Queen's University 1992 - 1997

Bachelors of Science (Honours), Life Sciences major, graduated with First Class Standing

# ACADEMIC TEACHING AS FACULTY

Mount Sinai Cadaveric Training lab:	
U of T residents: Surgical Approach's in Foot and Ankle Surgery	Aug 2015
U of T residents : Ankle Arthroscopy	Apr 2015
COFAS: cadaver lab instructor: techniques in foot and ankle surgery	Apr 2014
U of T arthroscopy lab : foot and ankle surgery	Nov 2013
Wright Medical: Inbone TAR surgical technique	Oct 2012
Smith and Nephew: Forefoot surgical techniques	Nov 2012
Wright Medical: Valor Nail surgical technique	Nov 2011
Smith and Nephew: Ankle Arthroscopic techniques	Nov 2011
Arthrex: Forefoot surgical techniques	Apr 2011
Arthrex: COFAS Ankle arthroscopy lab	Feb 2011



University of Toronto Ort	hopedic Residents
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National Orthopedic Resident Royal College examination preparation
Orthopedic Resident Down Day teaching: Ankle Osteoarthritis
CBC resident training program staff member
Apr 2011
Case Presentations to 5th year residents for Practice Royal College Exam (TWH)

ase Presentations to 5th year residents for Practice Royal College Exam (TWH)

Mar 2011

Case Presentations to 5th year residents for Practice Royal College Exam (TWH)

May 2010

# Scarborough Hospital

Department of Surgery education rounds: LIPUS in orthopaedic surgery May 2012
Emergency medicine rounds: Common Orthopedic injuries in the ED Nov 2010
Training of Physiotherapist for triage of Foot and Ankle patients (LHIN Foot and Ankle Triage Program)
Sep - Nov 2009

Fracture Rounds: Toronto Western Hospital

Orthopedic Case Presentations for Junior Residents July - Dec 2006

**ASCM** 

Undergraduate Medical Education – Physical Examination skills Feb - Mar 2007

# ADMINISTRATIVE ACTIVITIES

University of Toronto Fall 2012

Lecturer, Dept of Surgery

TWH (Altum) Fall 2012

Associate Clinical Staff

University of Toronto Spring 2012

Fellowship Supervisor Combined Foot and Ankle Fellowship

University of Toronto Spring 2011

CBC Resident Supervisor, Foot and Ankle surgery

Scarborough Hospital, Birchmount Summer 2008

Clinical Staff appointment, Dept of Surgery

# PRESENTATIONS/LECTURES

COFAS biannual mtg 2013 Apr

Moderator: Professor Panel Discussion: "Hindfoot Deformity"

COA Annual mtg 2013 Jun

Moderator Foot and Ankle surgery ICL: The diabetic foot

Presenter: Managing ankle fractures in the diabetic patient

COA Annual mtg 2012 Jun

"PTT transfer: A surgical technique"

COFAS biannual mtg: 2012 Apr

Expert panel discussion on hindfoot fusions

Toronto City Wide Foot and Ankle Rounds 2012 Apr

• "The evidence for the use of bone stimulation in foot and ankle patients."



# Scarborough Hospital Dept of Surgery Education Rounds 2012 Feb

 "Complex Hindfoot arthrodesis: is bone stimulation a viable adjunct to surgery"

# **Toronto City Wide Foot and Ankle Rounds**

2011 Apr

 Case Presentation: "Treating an infected nonunion tibial pilon fracture with a Stealth frame"

# Canadian Diabetes Association: Academic Presentation

2011 Apr

"Diabetic Foot: Charcot and other deformities"

#### C.S.O.T: Annual National meeting: Academic Presentation

2010 Apr

• "Complex talar fractures: treatment and prognosis"

# City Wide: Orthopedic Technologist rounds.

2008 Sep

'Complex fractures of the Hindfoot"

# **Division Rounds: Hospital for Sick Children**

•	Muscoskeletal Infections in the Pediatric Population	2004 May 20
•	Pediatric Knee Pain: A Differential Diagnosis	2004 Jun 18
•	Fractures Involving the Lateral Condylar Physis	2006 Jan 8
•	Idiopathic and Congenital Scoliosis	2006 Mar 17
•	The Limping Child	2006 Jun 16

#### Upper Extremity Rounds: St. Michaels' Hospital

•	Complex Carpal Injuries	2005 Feb 15
•	Duputyren's Contracture of the Hand	2005 Apr 11
•	Upper Extremity Infections	2005 Jun 21

#### Foot and Ankle Rounds: St. Michael's hospital

•	Flatfoot in the Adult	2005 Mar 29
•	Surgical Techniques: Ankle Arthrodesis	2005 May 25

# University of Toronto Resident Research Day

 PCEA vs PCA Comparing the efficacy of modalities post operatively in spinal fusion patients Supervisor: R Rampersaud MD FRCPC 2004 May 24

# **University of Toronto Kennedy Professor Day**

 Comparing Perioperative Outcomes of Minimal Access vs. Open Posterior Instrumented Lumbar Fusion Supervisor: R Rampersaud MD FRCPC

2004 Nov 3

# ADMINISTRATIVE ACTIVITIES

#### **Current Memberships**

Scarborough Hospital, Division of Surgery Secretary
 2014 - Present

American Foot and Ankle Society (AOFAS) - International Member

2010 - Present

Canadian Foot and Ankle Society (COFAS) - Member 2009 - Present

Canadian Orthopedic Association - Member 2008 - Present

American Association of Orthopedic Surgeons (AAOS) - Member

2001 - Present



#### Past Professional Associations

•	Professional Association of Interns and Residents of Ontai	rio (PAIRO) -
	Member	2001 - 2006
•	Canadian Medical Association (CMA) - Member	2001 - 2006
•	Canadian Orthopedic Association (COA) - Member	2001 - 2006
•	British Columbia Medical Association (BCMA) - Member	1998 – 2001

# RECENT RESEARCH AND SCHOLARLY ACTIVITIES

COA: Vancouver, BC Invited Faculty for Expert Panel on treatment of Neuromuscular Disorders o Foot and Ankle	<b>2015</b> f the
COFAS: Whistler , BC	2015
Invited Faculty: Surgical Complications in Foot and Ankle Surgery	
U of T COFAS	2014
Foot and Ankle meeting: Invited Faculty and Organizing committee	
COA: Montreal	2014
Wright Medical: New York	2013
Advances in Foot and Ankle Surgery	
COFAS	2013
Canadian Retreat: Osovoos	

# HONOURS AND AWARDS

•	Fellow of the Royal College of Surgeons of Canada	2006
•	Licentiate Medical Council of Canada	2005
•	Sopman Humanitarian Award	2004
•	Victoria Herman Van Dine Scholarship in Medicine	2000
•	Florence E Heighway Summer Research Award	2000
•	Douglas and Jean Bailey Scholarship for academic achievement	1999
•	David and Anne Beach Scholarship for academic achievement	1998

# PEER REVIEWED PUBLICATIONS

- Latham WC, Lau JT. The Hintegra Prosthesis: Design Issues and Implementation Techniques that lead to revision surgery. AAOS monograph series. in press
- Latham WC, Lau JT. Global Total Ankle Arthroplasty Systems Available.
   Total Ankle Replacement: An Operative Manual. Chapter. Lipincott/Wilkins. in press
- Latham WC, Lau JT. Bone Stimulation: A review of its use as an adjunct to Foot and Ankle Reconstruction. Techniques in Orthopedics. 2011; 26: 14-21
- Mulligan, Feilotter, Coulon, Boag, Dorion-Bonnet, Duboue, Latham WC, Eng, Longy. Analysis of the 10q23 chromosomal region and the PTEN gene in human sporadic breast carcinoma. British Journal of Cancer. 1999;79:718-723.

1999 - 2001

1999 - 2001

1999 - 2001



 Goetz, Alkasspooles, Latham WC. Relationship between patient age and CD4+ lymphocyte repletion following successful virologic responses to highly active anti-retroviral therapy. Sixth Conference on Retroviruses and Opportunistic Infections. Chicago, IL. 1999;335:131. Abstract.

# NON-PEER REVIEWED PUBLICATIONS

- Histology CD-ROM, UCLA Medical School, Los Angeles, CA Developed for medical undergraduate education. Supervisor: Dr. Anju Relan
- Pediatric Clinical Skills CD-ROM, produced by University of British Columbia medical students Topic Editor, January 2000 - May 2000
- Latham WC. Searching for a Tumour Suppressor Gene on Chromosome 7q in Human Sporadic Breast Cancer. April 1996. Undergraduate Thesis, Queen's University Pathology Department.
- Latham WC. Subtalar joint mechanics and pathogenesis. October 2012.
   Orthopedia (online resource).
- Latham WC, Gourlay W. Long term outcomes of graft function after transplantation of donor kidneys with multiple renal arteries. 1999. Submitted to Journal Of Urology
- Mulligan, Feilotter, Coulon, McVeigh, Boag, Dorion-Bonnet, Duboue, Latham WC, Eng, Mulligan and Longy. Loss of Heterozygosity in the Cowden Disease Critical Region in Human Sporadic Breast Carcinoma. 1996.
   Submitted to Cancer Research.
- Latham WC, Rampersaud R. Comparison of outcomes in PSIF using minimally invasive vs. open techniques. Spine 2006 Division of Orthopedic Surgery, Department of Surgery, University of Toronto
- Latham WC, Rampersaud R. PCA vs PCEA in posterior instrumented spinal fusion patients. Spine 2006 Division of Orthopedic Surgery, Department of Surgery, University of Toronto
- Latham WC. What is a Foot and Ankle subspecialist. Submitted to Health Chronicle. Aug 2011

# NON-ACADEMIC ACHIEVEMENTS

Surgery Online Interest group

Canadian History Association

Queen's Alumni Outdoor Club

•	Image Intensifier and Fluoroscopy operator license	2015
•	Member Leaside United Church	2010 - Present
•	Hospital Restructuring Committee (appointed)	2010 - Present
•	OMA liaison for MSA (medical staff association)	2010 - Present
•	Scarborough Hospital Community Outreach Program Volunt	eer
		2010 - Present
•	Rolph Road Soccer Association Head Coach	2010 - Present
•	Royal College CanMeds 2000 Committee	2001 - 2007
•	University of Toronto Residents Without Borders	2001 – 2007
•	Canadian Residency Matching Service (CaRMS) Orientation	Volunteer
	• • • • • • • • • • • • • • • • • • • •	2001 - 2007



•	Executive Committee Member, Mentorship Program	1999 – 2001
•	Director, Surgery Breakfast Club	1999 – 2001
•	Volunteer, Surgical Education CD ROM	1999 – 2001
•	Assistant Vice President, Medical Undergraduate Society (MUS	)
		1998 – 1999
•	Student Director, Mentorship Program	1998 – 1999
•	Committee Member, Hep C admission policy	1998 – 1999
•	UBC Medical School Orientation Week Committee	1998 – 1999
•	Hadley Cup Soccer Champion	1998 – 1999
•	Guyanese Director, Queen's Project on International Developme	ent (QPID)
		1997 – 1998
•	Direct supervision of the development and implementation of su	mmer
	projects within Guyana, South America	1997 – 1998
•	Queen's Medical Outreach Cooperant	1996
•	3 month Malarial survey and Health Education in Remote Village	es 1996
•	Peer Health Educator (Queens Student Health Service)	1994 – 1997
•	QFA: Special Projects Coordinator (1995 – 1996)	1994 – 1997
•	Queen's First Aid Member	1994 – 1997
•	On campus first aid unit run by student volunteers	1994 – 1997

# **REFERENCES**

# Dr. Johnny Lau

Foot and Ankle surgery Associate Professor, University of Toronto Toronto Western Hospital Toronto, Ontario (416) 603-5732 <a href="mailto:driphnnylau@gmail.com">driphnnylau@gmail.com</a>

# Dr. Roderick Davey

Head of Division of Orthopedics Toronto Western Hospital Associate Professor, University of Toronto Toronto, Ontario (416) 603-5732 <a href="mailto:rod.davey@uhn.on.ca">rod.davey@uhn.on.ca</a>

# Dr. Timothy Daniels

Head of Foot and Ankle Program St. Michael's Hospital Associate Professor, University of Toronto Adjunct Scientist in the Keenan Research Centre Toronto, Ontario (416) 864-5392 danielst@smh.ca



# TAB 16. DR. W LATHAM – SAMPLE REPORT



Anesthesiology & Chronic Pain Management

240 Duncan Mill Road Suite 101
Toronto, Ontario M3B 3R6

Telephone: (416) 840-5990 Fax: (647) 427-4100

#### INDEPENDENT CHRONIC PAIN ASSESSMENT

FOR:

Mr. XXX

RE:

Ms. Client
Date of Birth:

Date of Loss: March XX, 20XX – Motor Vehicle Accident

Date of Assessment:

Date of Report: December 7th, 2015

File No:

#### ASSESSOR:

Dr. Warren C. W. Latham, Medicine Professional Corporation, Orthopedic Surgeon, 385 Silver Star Blvd., Suite 206, Scarborough, ON M1V 0E3

# **CREDENTIALS**

I am a specialist Orthopedic Surgeon; I attended the Faculty of Medicine at the University of British Columbia, attained a degree of Doctor of Medicine in 2001 and completed my Orthopedic Surgery residency at the University of Toronto in 2006. I completed my fellowship in hip and knee surgery in 2007, followed by a fellowship in foot and ankle surgery at Toronto Western Hospital with Dr. Johnny Lau. I became a fellow of the Royal College of Surgeons of Canada with specialist certification in Orthopedic Surgery in 2006. I became a lecturer at the University of Toronto in 2013. I am a fellow of the American Orthopedic Foot and Ankle Society, the Canadian Orthopedic Foot and Ankle Society; I am a member of the University of Toronto Foot and Ankle Fellowship Program. I am a full-time active staff



physician at the Scarborough Hospital in Toronto. I work for Toronto Western Hospital, where I have staff privileges and I work for Altum, which is a private WSIB clinic. I am a published author in foot and ankle surgery. I train fellows from the University of Toronto at Scarborough Hospital as of 2013.

# MOTOR VEHICLE COLLISION

A brief synopsis of the motor vehicle collision on March XX, 20XX:

Ms. Client was crossing Albert Street in Ottawa in a West bound direction while using the pedestrian crosswalk. As she was crossing Albert Street with the right of way, she was impacted on the right side by a Brink's armored truck. Ms. Client's ankle was crushed by the front wheel of the Brink's armored truck and she sustained severe and traumatic injuries to her right lower leg.

# RELEVANT PAST MEDICAL HISTORY

She had previously documented history of right foot pain (which is in relation to a pes planus deformity). She had documented history of a rotator cuff tear. The patient had previous visits for trigger finger 1st finger at Ottawa Hospital and had an injection of the A1 pulley of the 1st finger on May 13, 2009. She had complaints of right shoulder pain with possible rotator cuff pathology, dictated October 14, 2011 by Dr. Lapner. She was diagnosed by Dr. Lapner with significant bicep subluxation as well as partial thickness supraspinatous tear, upper third subscapularis tear.

Diagnosed with chronic venous insufficiency June 23, 2010. Probably related to being an exsmoker with low probability of having a DVT.

She had a previous EMG in August 2011, confirmation of left median nerve entrapment consistent with carpal tunnel syndrome.

Also had a fall in which she reported to the Emergency Department July 5, 2011 with an injury to the right shoulder, right ankle and right hip. She was on a 3-foot step ladder and fell onto her right shoulder, right ankle and right hip. There was a question of an avulsion fracture of the cuboid. No fracture to the right shoulder. She was referred to the orthopedic clinic on an outpatient basis.

She also had a right cataract surgery in October 2010, performed at Ottawa Civic Hospital.

Since the collision on March XX, 20XX which caused her injuries, she now continues to suffer from physical and psychological impairments. She suffers from the injury of open bimalleolar fracture of the right ankle grade IIIA Gustilo, fibular fracture, degloving injury to the right ankle, right shoulder pain, lower back pain, depression and anxiety.

#### DOCUMENTS REVIEWED

We have reviewed the records including Ottawa Hospital notes, Emergency Department notes, triage assessment, emergency physician notes, general



practitioner records, notes from TRAC Group Rehabilitation, physiotherapy reports, ambulance call reports and psychological.

#### RECORD REVIEW AND HISTORY

Record Review from Ottawa Hospital records. History of hospital records, the patient was admitted on March XX, 20XX after a collision with a motor vehicle. She had a grade IIIA Gustilo injury. She was taken to the operating room, she was admitted through the Emergency Department stabilized and taken to the operating room for an open fracture. From the operative record, Dr. Wai performed an irrigation and debridement of the open wound with debridement with external fixation and open reduction. The patient consented to an external open reduction external fixation with irrigation and debridement prior to surgery by Dr. Eugene Wai. The surgery was relatively unremarkable. The post-operative plan was to get a CT scan and then plan for definitive fixation with subsequent soft tissue coverage. Gentamycin beads were implanted at the time of surgery. The skin was partially closed, sterile dressings were applied.

The patient was referred to plastic surgery service for her medial open wound. She was seen post-operative day 1, a consultation with plastic surgery service suggested VAC care until wound closure and definitive management of the fracture. Of note, in the surgery the patient was noted to have a good dorsalis pedis pulse post-operatively. The patient was seen by plastic surgery service after a repeat irrigation and debridement performed by Dr. Phan and Dr. Kopka on March 24, 2014, again without complication. A note was made of a highly unstable ankle. K-wire fixation was inserted medially.

A repeated surgery March 26, 2014 for an I&D right ankle, removal of ex-fix, definitive ORIF was performed by Dr. Gofton with VAC application. This was a definitive fixation surgery. The plastic surgery service saw the patient post-op day 1 and agreed with using VAC negative pressure dressing in order to further heal the wound.

On March 31, 2014, plastics noted that there was a 4 x 12 cm wound which was clean with exposed tendons, that the patient may require a secondary closure or skin grafting of the wound. On April 3, there was suggestion that VAC should be continued with possible operation in the subsequent weeks based on overall swelling, until swelling was reduced, this was post-operative day 10. The swelling was reduced enough for plastics intervention. There was apparently a conference between Dr. Gofton and Dr. Allen, the attending plastic surgeon, about soft tissue planning. VAC therapy continued until post-operative day 19, April 14; again note was made of swelling control required in order to have definitive wound closure or a grafting. Surgical incision from Dr. Gofton's open reduction internal fixation were at this point healed. The patient was ultimately taken to the operating room on April 16, 2014, the soft tissue defect was closed using a rotation flap and split-thickness skin graft of the right medial ankle performed by Dr. Allen without complication.

The patient was discharged with diagnoses of right compound medial malleolar fracture, distal fibular fracture, GE reflux, and chronic anxiety.



On physical exam from the date of her admission on the discharge summary noted she had a compound medial malleolar fracture, distal fibular fracture, large medial ankle soft tissue defect, neurovascularly intact on presentation with irreducible ankle fracture dislocation of the ankle.

She was discharged to convalescent care to follow up with plastic surgery, as well as orthopedics in one to two weeks following discharge. She was non-weightbearing on her limb at that point.

Emergency department notes, triage assessment, paramedic notes and emergency physician notes were also reviewed, they are consistent with the history.

From our current interview today, this patient recounted similar events, she had difficulty recalling all of the surgeries that have been undertaken in the exact order, but her account is consistent with her hospital records. This account of this was directly from the claimant herself.

# RADIOLOGY REVIEW

Review of radiology, the patient has an x-ray of her right ankle from May 21, 2009 ordered by Dr. Thompson; outcome of the study is osteoarthritis of the right ankle, associated medial joint space narrowing, osteophyte formation, medial tilt of the talus also seen, diffuse soft tissue swelling associated, only small osteophytes noted in the medial malleolus on the left; bilateral hallux valgus, 3rd and 4th metatarsals are shortened bilaterally presumed to be developmental. Osteoarthritis of the left 2nd MTP joint, left 5th MTP joint; bilateral subtalar osteoarthritis was also evident, worse on the right with flattening and collapse as well as an os naviculare. This was termed to be severe bilateral subtalar osteoarthritis, worse on the right than on the left. X-ray of her foot from July 7, 2010 shows no change from previous x-rays; bilateral hallux valgus, congenitally short 3rd and 4th metatarsals, severe OA of the right subtalar joint. She has imaging of lumbosacral spine from October 7, 2010 which show possible inflammatory arthropathy involving the pubic symphysis which appears isolated, degenerative change in the lumbosacral spine multiple levels, they appear stable.

CT scan of the right ankle dated March 23, 2014, ordered by Dr. Eugene Wai. Impression is oblique intraarticular medial malleolar fracture, fixed with 2 pins, this was post-external fixation initial procedure. One of the pin tips is in the syndesmotic space. Oblique intraarticular fracture of the posterior lateral tibial plafond, complex comminuted distal fibular fracture, marked disruption of the syndesmosis, large open laceration anteromedial aspect of distal tibia; oblique longitudinally oriented structure either bone fragment or penetrating foreign body imbedded posteromedially between the flexor digitorum and tibialis posterior nerve, prior subtalar ankylosis, exophytic bone at the subtalar calcaneus likely result of impingement.

Intraoperative radiograph of the ankle on March 24, two images taken in the OR using image intensifier, shows application of the external fixator frame. Transfixion of the medial malleolar fracture appears unchanged; comminuted distal fibular fracture is again noted, no significant change.



Fluoroscopic images on March 26 show fixation of the distal fibula with buttress plate and numerous screws as well as high syndesmotic screws, medial malleolus which is fixed with 2 screws as well.

There is an AP, lateral, oblique and mortise view radiographs from May 1, 2014 which show the tibiotalar joint is asymmetric, widened laterally, no change from previous; can be followed up with future radiographs. Medial malleolar screws are unchanged, medial malleolar soft tissue defect has been closed. The patient was still in a plaster slab, no change in position of comminuted distal fibular fracture reduced with lateral plate and screws.

May 22nd, another x-ray ordered by Dr. Gofton showed no significant interval change. No change in known collapse of the talocalcaneal joint. No presence of osseous complications.

July 3, 2014, no unfavorable interval change, satisfactory progressive healing of bimalleolar fracture; fracture line is still visible indicating incomplete bony union, no hardware failure or complication apparent; the ankle mortise is congruent, joint spaces maintained, talar dome and syndesmoses are intact. Note is made of pes planus deformity of the right foot.

August 14, 2014, repeat radiographs showed collapsed subtalar joint which was present prior to surgery still visualized; progressive healing of the fibular fracture. Less distinct fracture lines, especially medial malleolus which has become less apparent.

September 11, 2014, x-ray of the ankle showed satisfactory post-op appearance, comminuted fracture has undergone open reduction internal fixation, hardware remains intact, further evidence of healing.

I have another x-ray which is recent from Riverside Campus dated October 2, 2015 showed lateral fibular plate and screw, syndesmotic screw, 2 medial malleolar screws are seen transfixing the tibia and fibular. There is no fracture through the orthopedic hardware. There is mild interval increase lucency surrounding the syndesmotic screw, likely representing motion at that site. There is smooth periosteal reaction along the medial tibial cortex adjacent to the syndesmotic screw. Some irregular callus/periosteal reaction is also seen along the syndesmotic screw laterally in the interosseous space. There has been bony union of the posterior malleolus fracture. Incomplete union of the lateral malleolar fracture. Advanced ankle arthritis, there is no ankle effusion, there is mild degenerative changes intertarsal and TMT joints. Bone mineralization is diminished. Overall impression, mildly increased periprosthetic loosening surrounding the syndesmotic screw likely represents motion at that side; non-united lateral malleolar fracture; advanced subtalar and ankle osteoarthritis.

# SUBJECTIVE ORAL HISTORY

The patient was interviewed today. She said that primarily she has difficulty walking for more than an hour. She has difficulty walking a number of blocks. She has to take transportation now to do grocery shopping. Prior to her injury she had taken tours of Europe in 2013. She was extremely active. She could walk for approximately an hour and 15 to 20 minutes at a time. She has difficulty walking



on uneven surfaces. She has to use anti-inflammatories as well as Tylenol #3. She uses Voltaren cream. She has not tried an orthoses for management. She has been using physiotherapy since the date of her discharge in 2014. She has had spine surgery in July 2015 for a lumbar spine spondyloarthropathy. Her pain is primarily mechanical in nature, 8 to 10 with activity; 3 to 4 with no mechanical activity. She continues to experience pain that affect her lower limb and ankle, as well as swelling. Standing, walking, bending, crouching, dynamic balance and general mobility tolerances are impacted by the injury and the pain and discomfort. She walks with a cane or a walker. She has ongoing self-care difficulties as well as psychosocial difficulties related to the injury. Her reports of pain commensurate with the previous reports including to the TRAC Group occupational therapist. She has fatigue, she reports feeling very tired after walking even short distances. She has waking at night due to pain in her ankle.

# PHYSICAL EXAM

This patient presents with a swollen lower limb. She walks with an antalgic gait using a cane. She walks at a slow paced. Her range of motion is limited to approximately 0 degrees of dorsiflexion, she has crepitus with range of motion testing; her active and passive dorsiflexion are the same. She has a gastroc contracture. She has an irreducible subtalar joint on range of motion testing. She stands with a valgus hindfoot and has crepitus with attempt at reduction of her subtalar joint. She has subfibular impingement. She stands with a pes planus deformity, the hindfoot and midfoot. Pain with palpation of os naviculare, subfibular area; alignment, hindfoot valgus; forefoot and midfoot abduction, unable to do a single stance heel raise. Ankle range of motion reduced to neutral with active and passive dorsiflexion. Subtalar joint has decreased range of motion and is difficult to reduce into position. With ankle range of motion and subtalar range of motion there was crepitus. The skin envelope appears to be intact. The patient has some hyperesthesia along the course of her SPN nerve. Her skin graft and rotational flap over the medial malleolus is well-healed. She appears to be her stated age. Her surgical scars laterally are well-healed.

# **IMPRESSION**

This is a patient who suffered an open fracture dislocation of her ankle. She had pre-existing ankle and subtalar osteoarthritis. Her ankle fracture has gone on to a non-union of the lateral malleolus based on most recent imaging, with worsening of her ankle osteoarthritis and subtalar arthritis and worsening deformity related to lateral malleolar non-union.

Specific questions from your letter dated August 24, 2015. I would appreciate if you could carry out a review of Ms. Client's medical records. I would also request that you conduct a thorough medical examination of Ms. Client and advise me, in your medical opinion, on the following:

Q1: Your diagnosis of the nature and extent of the injuries sustained by Ms. Client relating to the motor vehicle accident of March XX, 20XX?

The patient suffered an open Gustilo IIIA fracture dislocation of the right ankle. Injuries appeared to be isolated to that area.



Q2: Your description of the impairments, if any, sustained by Ms. Client and a description of the nature of the impairments.

She has ongoing non-union of her lateral malleolus which has reduced overall walking tolerance, she has ongoing permanent mechanical pain.

Q3: Your prognosis as it relates to her injuries?

She is approximately a year and a half since her injury and surgery. She likely has a non-union of the malleolus which will not heal. She had pre-existing degenerative arthritis of the ankle joint and subtalar joint which also have symptomatology which has worsened due to the nature of the injury, prolonged immobilization post-operatively as well as continued instability of the ankle joint as noted by Dr. Gofton and Dr. Wai.

Q4: Your opinion on whether Ms. Client's condition and impairments are permanent and if so if you could provide us with a calculation relating to the degree of lower limb impairment experienced by our client?

These conditions are permanent. Using the American Medical Association calculation for the degree of lower limb impairment, based on muscle atrophy, decreased range of motion, the diagnosis itself and continued non-union, as well as worsening of instability, the worsening of arthritis in the ankle joint; it would be approximately 35 to 40 percent lower extremity impairment. Consistent with 10 percent whole person impairment.

- Q5: If it is your opinion that Ms. Client suffered from pre-existing medical condition(s) and impairment(s) before the March XX, 20XX collision, could you please list those conditions and impairments and explain whether they have been exacerbated by the collision in 2014.
- Q6: If the answer to question 5 is positive, please describe the nature of the exacerbation.

Yes, she had documented radiographic evidence of ankle osteoarthritis as well as subtalar osteoarthritis and they were likely exacerbated by the injury itself due to ankle instability due to the nature of the fracture. Ankle arthritis has worsened and subtalar arthritis has worsened related to valgus position of the ankle, progressive related to instability of the ankle joint.

Q7: In your medical opinion, had the motor vehicle accident of March XX, 20XX not occurred would Ms. Client's pre-existing medical condition(s) have worsened naturally?

Yes it would have worsened naturally related to the amount of deformity which was already present in her previous x-rays as well as osteoarthritis.

Q8: In the event that our client does suffer from a lower limb impairment, will she require the use of mobility devices? If so, could you kindly suggest the types of mobility devices she will require over her lifetime?

I believe she would require an AFO brace. She continued non-union of her fibula related to her injury, as well as ankle and subtalar osteoarthritis. An AFO brace is an ankle foot orthosis, it is a rigid orthosis without joints for motion, in order to prevent motion in the ankle and subtalar joint when walking.



Q9: In your medical opinion, in light of her current impairments is Ms. Client able to continue to carry out usual household responsibilities?

She has a fairly severe deformity as well as severe osteoarthritis of her ankle as well as a nonunion of her fibula, it may be difficult for her to carry out ADLs related to standing as she has significant mechanical pain with standing.

Q10: In your opinion was the collision of March XX, 20XX the cause of Ms. Client's current medical complaints?

She has related to recent imaging has an ongoing non-union of her fibula, this will continue to be a pain generator. Certainly exacerbation of the instability of the ankle has led to more pain with mechanical activity for her.

Q11: In light of our client's injuries and impairments could you kindly provide a list of medical treatment recommendations that would further assist her recovery or allow her to maintain the progress she has made?

I believe this patient should have a revision open reduction internal fixation fibula with a TTC or tibiotalocalcaneal fusion with local and iliac crest bone graft in order to decrease the patient's amount of pain. Certainly if she is not amendable to that operation, also a subtalar fusion with total ankle arthroplasty would be reasonable for continued motion of the ankle joint. But she has lost a significant amount of ankle joint motion, she would certainly benefit from a hindfoot procedure in order to lessen her pain.

Q12: In light of our client's injuries and impairments could you kindly provide a list of rehabilitation treatment recommendations that would assist our client in completing her regular activities of daily living?

There really is none. This patient has end-stage osteoarthritis of her ankle. An Exogen bone stimulator may be helpful at this late stage for non-union of her fibula, however there is marginal evidence to support the use of that at this point.

Q13: In light of your findings, would you recommend that Ms. Client be assessed for orthotic insoles?

Absolutely and also an AFO brace would be more helpful as it would provide more stability of her ankle, subtalar joint and media malleolar pain with walking.

The specific citations related to opinion:

- 1. Ankle Osteoarthritis; Hintermann, Kauffman and Mann, 9th Edition
- 2. Fractures in the Adult. Rockwood and Green. 5th Edition
- 3. Campbell's Operative Orthopedics 10th Edition
- Post-traumatic Ankle Arthritis after Ankle Related Fractures; Journal of Orthopedic Trauma, January 23, 2009 Edition, Valderrabano
- Tibial Plafond Fracture by Dr. Wigel; Journal of Bone and Joint Surgery, February 2003, Issue 85
- Treatment of Severe Tibial Pilon Fractures, Dr. Blauth; Journal of Orthopedic Trauma, March/April 2001
- Long Term Results of Ankle Arthrodesis Following Post-traumatic Arthritis by Charles Saltzman; Journal of Bone and Joint Surgery, February 2001, 83rd Issue



# DISCLOSURE STATEMENT

All of the above analyses are based upon the available information at the time of this assessment, including the history given by the client, available medical records, and the findings from his assessment. It is assumed that the information provided to me is correct. If more information becomes available at a later date, an additional report may be required. Such information may or may not change the opinions rendered in this evaluation.

Any medical recommendations offered are provided as guidance and not as medical orders

I hope that this report is useful in further management of Ms. Client's issues. Should you require any further information, please do not hesitate me through my office

Yours truly,

Warren Latham BScH, MD,FRCSC

WL/ap



# TAB 17. CHIROPRACTIC



TAB 18. DR. MIKE LEHR - CV

# Dr. Michael Lehr D.C., Dip.Ac., CDTT, Hons. BSc

101-240 Duncan Mill Road North York, Ontario M3B 3S6 Tel: 416-840-5990 ext. 24

Fax: 647-427-4100

Michael.Lehr@AllevioClinic.com

# **EMPLOYMENT**

Allevio Pain Management Clinic, North York, Ontario Chiropractor/Acupuncture/Independent Medical Evaluator	2012 - Present
<b>Union Ergonomics</b> , Woodbridge, Ontario Chiropractor/Acupuncture/Clinical Director	2010 - Present
<b>Downsview Wellness Clinic,</b> North York, Ontario Chiropractor/Acupuncture/Clinical Director	2010 - Present
<b>Health Matters Chiropractic Center,</b> Vaughan, Ontario Chiropractor/Acupuncture Associate	2006 - Present
<b>Regain Health,</b> North York, Ontario Pain Management, Professional Chronic Pain Associates, Chirc Acupuncture, Clinical Director (Physical Team), Independent Me	•
Allied Medical Associates, North York, Ontario Independent Medical Evaluator	2008 - 2010
Canadian Chronic Pain Associates, Etobicoke, Ontario Chiropractor, Acupuncture, Clinical Director (Physical Team), In Medical Evaluator	2008 dependent
Sheppard Chronic Pain Associates, North York, Ontario Chiropractor, Acupuncture, Clinical Director (Physical Team)	2007 - 2008
Specialist Group, North York, Ontario Independent Medical Evaluator	2006 - 2008
Integris Healthcare Center, North York, Ontario Chiropractor/Acupuncture/Clinical Director (Physical Team)	2004 - 2008
South Riverdale Medical Center, North York, Ontario	2002 - 2003

# **EDUCATION**

Canadian Memorial Chiropractic College, Toronto, Ontario Doctor of Chiropractic	2003
Acupuncture Council of Ontario, Toronto, Ontario Diploma of Acupuncture: Clinical Levels 1 & 2	2003
NBCE (National Board Chiropractic Examinations) Professional Licensing Body in USA, NBCE Part 1 & 2	2003



# University of Toronto, Toronto, Ontario

1999

Honors Bachelor of Science, Specialist Physical Anthropology, Zoology

# MEMBERSHIPS & PROFESSIONAL AFFILIATIONS

- Member of Canadian College of Chiropractors
- Member of Canadian Chiropractic Association
- Member of Ontario Chiropractic Association
- Member of Acupuncture Council of Ontario
- Member of International Association for the Study of Pain
- Member of Canadian Pain Society

# SEMINARS & CONFERENCES

•	DC Tracts Bracing and Orthotics	2012 Jun
•	Acupuncture Council of Ontario - General Members Conference	2012 Apr
•	Clinical Acupuncture - Myofascial Pain and Trigger Points	2012 Apr
•	Clinical Acupuncture - Neurophysiological Mechanisms of Acupuncture and	
	Treatment of Neurological Conditions, Toronto, ON	2011 Jan
•	Clinical Acupuncture - Evidence Based Acupuncture of Common S	port

- Medicine Conditions, Toronto, ON 2010 Nov
- Clinical Acupuncture Treatment of the Chronic Pain Patient, Toronto, ON 2008 Nov
- Canadian Chiropractic Association Clinical Note Taking Seminar, Toronto, ON

  2007 Jun
- Motor Vehicle Accident/SABS Conference, Toronto, ON
   2007 Feb

# CLINICAL DOCUMENTATION/INDEPENDENT MEDICAL EVALUATIONS/COURTROOM EXPERIENCE

# Chronic pain expert witness courtroom experience

2004 - Present

Clinical expertise in the review of documentation/assessment of patient for the purposes of generating OCF-18, OCF-3, OCF-22, OCF-23 and Form 1, as well as independent medical/legal evaluations, disability evaluations, rebuttal reports (benefits and treatment), progress reports for insurers, section 42 assessments, discharge reports and multidisciplinary chronic pain assessments.

# ADDITIONAL TRAINING

• Certified Decompression Traction Therapist (CDTT), Toronto, Ontario

2011 Feb

Shockwave Therapy, Toronto, Ontario
 2009 Jun

Compression Garment/Hosiery Fitter, Toronto, Ontario
 2010 Oct

 Canadian Fitness Professionals Personal Training Program, Toronto, Ontario 2005 Dec

647-723-8758. Experts@allevioclinic.com



# **AWARDS**

• Scarborough Recognition Award Recipient, Scarborough, Ontario

# COMMUNITY OUTREACH PROGRAMS

- Soccerfest Caribbean Invitational Soccer Tournament, North York, Ontario 2011, 2012
- MS Walk for the Cure, Etobicoke, Ontario 2006 2011
- Canadian Memorial Chiropractic College 5K Run/Walk, Toronto, Ontario2003

# REFERENCES AVAILABLE UPON REQUEST



# TAB 19. DR. ALLAIN SWAYZE - CV

# Allan G. Swayze, MD., D.Psych., FRCPC

101-240 Duncan Mill Road North York, Ontario M3B 3S6

Tel: 416-840-5990 ext. 24

Fax: 647-427-4100

Experts@AllevioClinic.com

# HOSPITAL APPOINTMENTS (PAST AND PRESENT)

HUSPITAL APPOINTMENTS (PAST AND PRESEN	(1)
North York General Hospital, 1986 to Present	
Consulting Staff (Present)	2006 - 2014
Active Staff	1986 - 2006
Consultant Psychiatrist, Genetics Program	1987 - 2010
Cross Appointment, Dept. of Genetics	1994 - 2004
Associate Psychiatrist In Chief	1987 - 1991
Coordinator, Consultation Liaison	1986 - 1996
President, NYGH Branch, Ontario Medical Assoc.	1988 - 1990
Member, Consultation Liaison Team	1998 - 2001
Coordinator, Psycho-Geriatric Multi-Disciplinary Program	1989 - 1991
Teacher, Intern & Family Practice Residents	1986 - 1998
Medical Advisory Committee	1987 - 1994
Member, Palliative Care Team	1989 - 1992
Member, Huntington Disease Genetics Predictive Team	1998 - 2006
Member, Familial Breast Cancer Genetic Predictive Team	1999 - 2006
Member, Genetics Prenatal Diagnostic Support Team	1988 - 2006
Study, Bipolar Disorder Genetics Research With Clarke Institute (	(CAMH)
	1998 - 1999
Member Genetics Program Advisory Council	1993 - 2012
Member, Genetic Predictive Test For Huntington's	1988 - 1995
Member, Lomotrigine Effects in Huntington's	1991 - 1994
Member, Bereavement Multi-Disciplinary Committee	2000 - 2001
Member, Psychosocial Committee, Provincial Advisory Committee	
Genetic PredictiveTechnology	2000 – 2001
University of Toronto Faculty of Medicine	
University of Toronto Student Member, Board of Affairs Faculty of	f Medicine
Assessors	1991 - 1997
University of Toronto Student Chair, Board of Affairs, Medical Ass	sessors Faculty
of Medicine & Occupational Therapy, Physiotherapy, and Radiation	on Therapy
	1997 - 2006
Sunnybrook & Womens College Health Science Centre Toron	nto
Courtesy Staff	1996 - 2003
Sunnybrook Regional Cancer Centre, University of Toronto	
Advisor, Research Project, Hereditary Breast Cancer	1996 – 1998
, ,	



Toronto General Hospital	
Associate Staff Dept. of Psychiatry	1979 - 1995
Womens College Hospital, University of Toronto	
Courtesy Staff	1970 - 1971
Associate Staff	1971 - 1972
Active Staff	1972 - 1986
Courtesy Staff	1986 - 2003
Acting Chief, Psychiatry	1973 - 1974
Assoc. Chief, Psychiatry	1972 - 1985
Acting Chief, Psychiatry	1983 - 1984
Vice President, Medical Staff Association	1979 - 1980
President, Medical Staff Association	1980 - 1981
Member, Board of Governors	1980 - 1981
Director, Inpatient Psychiatric Unit	1973 - 1985
Coordinator, Consultation-Liaison Team	1973 - 1985
Teacher, Rotating Interns/Family Practice Residents	1971 - 1985
Member, Medical Advisory Committee	1972 - 1985
St. Michael's Hospital, university of Toronto	
Active Staff, Dept. of Psychiatry	1968 - 1971
Coordinator, Consultation Liaison Team	1968 - 1971
Teacher, Psychiatric Residents	1968 - 1971
Inpatient Psychiatric Unit Team Member	1968 - 1971

# **EDUCATION**

University of Toronto	1966
Medical Training, MD	
University of Toronto	1971
Post Graduate Psychiatric Training Fellowship, Royal College of Physician	ns &
Surgeons, Psychiatry	

# **QUALIFICATIONS & ACADEMIC APPOINTMENTS**

Lecturer, University of Toronto	1970 - 1977
Diploma in Psychiatry, University of Toronto	1966 - 2014
Certificate in Psychiatry, Royal College	1971 - 2014
Fellowship in Psychiatry, Royal College	1971 - 2014
Assistant Professor of Psychiatry, University of Toronto	1977 – 2014

# **HOSPITAL COMMITTEES**

- Library Committee
- Medical Records Committee
- Credentials Committee
- Infection Control Committee
- Pharmacy Committee
- Ethics Committee
- Educational Committee



Medical Advisory Committee

# HONOURS AND AWARDS

• Teacher of the Year Award, North York General Hospital

1989-1990

# ADMINISTRATIVE ACTIVITIES

# **Appointments**

- Advisory Committee, Wellness Program, Law Society of Upper Canada
- Advisory Committee, Niagara on the Lake Hospital
- Canadian Back Education Association, Lecturer
- Director, Rosehill Institute of Human Relations
- Workplace Safety & Insurance Board, Consultant
- Academy of Medicine, Secretary Section of Psychiatry
- Grace Hospital Toronto, Consultant

# **Professional Memberships**

- Ontario Medical Association
- Ontario Psychiatric Association
- Canadian Psychiatric Association
- College of Physicians & Surgeons of Ontario
- North York General Hospital Medical Staff Association
- Royal College of Physicians & Surgeons

# REFERENCES AVAILABLE UPON REQUEST



# TAB 20. DR. RAHUL PATHAK - CV

#### Dr. Rahul Pathak MD

101-240 Duncan Mill Road North York, Ontario M3B 3S6

Tel: 416-840-5990 ext. 24

Fax: 647-427-4100

Experts@AllevioClinic.com

# **EMPLOYMENT**

Stony Brook University Hospital, Stony Brook, NY 2013 Jul – 2014 Jun Neurology Chief Resident Created the annual residents rotation, call, and lecture schedules. Established a muscular dystrophy rotation at an affiliate hospital. Endo Pharmaceuticals Westbury, NY

Internship in Technical Operations Division, Westbury, NY

2002 Jul – 2004 Aug

Assisted in the conversion of medication formulation records to a digital format. Helped make feasibility batches for a particular formulation that the company was researching

**New York Institute of Technology,** Westbury, NY **2005 Jan - 2005 Dec** Research Assistant, Performed literature searches on DNA-RNA-protein nanotechnology, then organized articles for Dr. Claude E. Gagna.

Peer Tutor 2002 Sep – 2002 Dec

Assisted students individually in introductory Calculus.

# **EDUCATION**

Ross University School of Medicine Dominica, West Indies 2009 Dec Highest Honors - Medical Doctor (M.D.)

New York Institute of Technology Westbury, NY 2005 Dec Cum Laude in Life Sciences

# **ACADEMIC TRAINING**

New York University Medical Center New York, NY
2014 Jul - Present
Interventional Pain Management Fellowship Duties include Inpatient Consultation,
Outpatient Ambulatory Clinic, Palliative Care, Psychiatry, Physical Medicine &
Rehabilitation, and Anesthesiology

Stony Brook University Hospital Stony Brook, NY 2011 Jul – 2014 Jun Neurology Residency Responsibilities include Inpatient Neurology Wards, Stroke Unit, Night Float, Inpatient Consultation, Outpatient Ambulatory Clinic, Pediatric Neurology, Psychiatry and Research Opportunity

**Staten Island University Hospital** Staten Island, NY **2010 Jul – 2011 Jun** Preliminary Medicine Intern Year Preliminary Internal Medicine Program (PGY 1) - Duties included 7 months of Inpatient Medicine Service, Intensive care rotations in



2002

Medical ICU, Coronary Care Unit, Night Float, Electives in Neurology, Infectious Diseases and Ambulatory Medicine Clinic

# ACADEMIC MEMBERSHIPS & SCOLARSHIPS

Alpha Omega Alpha Medical Honor Society  Member, One of only two residents nominated from Stony Brook I on academic and teaching merits	2014 - Present Hospital based
<b>Teacher of the Year – Neurology</b> Stony Brook University Hospital	2013 - 2014
<b>Teacher of the Year – Neurology</b> Stony Brook University Hospital	2012 - 2013
American Society of Interventional Pain Physicians Member	2012 - Present
American Academy of Neurology Member	2010 - Present
American College of Physicians Member	2007 - Present
Phi Eta Sigma National Honor Society	2003 - 2005

# **HOSPITAL COMMITTEES**

Theodore K. Steele Memorial Scholarship

# **Clinical Advisory Committee**

 Aids in transition to electronic medical records and diagnosis based order sets.

# **CERTIFICATIONS**

- Successfully completed USMLE Step I, II CK/CS, III 2007 2010
- Certified in Basic Life Support/ACLS/PALS by the American Heart Association

# **ABSTRACTS**

- Neuraxial Interventions in Multiple Epiphyseal Dysplasia
   Case report describing sliding spondylolisthesis in a patient with Multiple Epiphyseal Dysplasia presenting for routine pain evaluation.

   1st Prize New York Neurology Society on 9/2013
- Assessing Etiologies of Stroke Readmissions
   Analyzing Stony Brook stroke admissions from 2011 2012 for co morbidities, MRI findings, age, and gender then correlating rates of readmission. Found high

   NIH stroke scales correlated to more readmissions



# **GRAND ROUNDS**

 Neuromyelitis Optic, Thymectomy and Common Variable Immune Deficiency linked to BAFF

Describing the relation between NMO, MG s/p Thymectomy, and CVID to BAFF. In addition illustrating the first case report connecting all three disorders

# ONGOING RESEARCH PROJECTS

IVIG for Complex Regional Pain Syndrome
 Measuring baseline autonomic testing, infusing IVIG, then retesting and
 analyzing pain scores

# REFERENCES AVAILABLE UPON REQUEST



# TAB 21. DR. MATHEW PLANT - CV

# Dr. Mathew A. Plant MD. FRCSC

101-240 Duncan Mill Road North York, Ontario M3B 3S6

Tel: 416-840-5990 ext. 24

Fax: 647-427-4100

Experts@AllevioClinic.com

# **EMPLOYMENT**

# Orillia Soldiers' Memorial Hospital

2014 - Present

Locum Plastic Surgeon Full-time Plastic Surgeon (on locum contract) providing emergent and elective surgical care in all domains of plastic surgery with an emphasis on hand and peripheral nerve, skin cancer and breast reconstruction.

# Rouge Valley Health System

2014 - Present

Locum Plastic Surgeon providing coverage for emergency call and clinics.

# University of Toronto, Faculty of Medicine

2014 - Present

Seminar Leader, Ethics and Professionalism.

Lectured undergraduate medical students at the University of Toronto on various topics regarding ethics and professionalism.

# **Clearview Institute**

2014 - Present

Director, Division of Plastic Surgery, Responsible for the creation and day-to-day operation of the division of plastic surgery at the clearview vision institute.

# QxMD Software Inc.

2013 - Present

Section Author, Plastic Surgery. Responsible for providing content in Plastic Surgery for point of care medical calculation application.

# Centre for the Evaluation of Health Professionals Educated Abroad

2013 - Present

Physician Examiner, Responsible for Assessing Foreign-Trained Physicians for Suitability to Practice Medicine in Canada.

# StudentAwards.com RBC Royal Bank Scholarship for First Year Medical and Dental Students 2008 - 2010

Invited Judge, Judged Essay Submissions in a National Scholarship Competition for FirstYear Medical Students. 2 Consecutive Years.

Kaplan Test Prep 2004

Course Instructor, Taught Courses in Biological Sciences and Verbal Reasoning Sections of MCAT Prep course for students at the University of Toronto, York University and McMaster University

# PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

Canadian Society of Plastic Surgeons Active Member
 2015 - Present

American Society of Plastic Surgeons Candidate Member 2015 - Present

• Canadian Society for Aesthetic Plastic Surgery Candidate Member 2014 - Present



Royal College of Physicians and Surgeons Fellow, Plastic Surgery

2014 - Present

- Royal College of Physicians and Surgeons Resident Member
   2013 2014
- Division of Plastic and Reconstructive Surgery, University of Toronto Run Coordinator, Canadian Breast Cancer Foundation Run for the Cure 2013
- Division of Plastic and Reconstructive Surgery, University of Toronto Team
   Coordinator, CSPS Challenge Cup

  2011, 2013
- Doctors Against Racism and Antisemitism (DARA) Member 2009 Present
- Canadian Society of Plastic Surgeons Junior Member
   2008 2015
- American Society of Plastic Surgeons Resident Member
   2008 2015
- Professional Association of Internes and Residents of Ontario Representative,
   Toronto Surgery
   2009 2010
- The Schulich School of Medicine Admissions Committee Interviewer

2007 - 2008

 Hippocratic Council, The Schulich School of Medicine and Dentistry Orientation coordinator
 2005 - 2006

# PEER-REVIEWED PUBLICATIONS

- Plant, M.A., Fish, J (2015). Resident Use of the Internet, E-Mail, and Personal Electronics in the Care of Surgical Patients. Teaching and Learning in Medicine. 27(2): 215-223
- Plant, M.A., Sade, S., Hong, C., Ghazarian D.M.D. (2012).
   Syringocystadenocarcinoma Papilliferum in situ of the Penis. Eur J.
   Dermatol. 22(3): 405-406
- Plant, M.A., Panchapakesan, V. (2011). Digital Artery Pseudoaneurysm in a Patient with Previous Radial Artery Harvest. Can J Plast Surg. 19(4): 148-150.
- Plant, M.A., Fialkov, J. (2010). Total Scalp Avulsion with Microvascular Reanastomosis: A Case Report and Review of the Literature. Canadian Journal of Plastic Surgery. 18(3): 112-115.
- Plant, M.A., Scilley, C.G., Speechley, M. (2009). Single-Stage Immediate
  Breast Reconstruction Using a Skin Sparing Incision and Definitive Saline
  Implants Compared with a Two-stage Reconstruction Using Tissue
  Expansion Plus Implant. Canadian Journal of Plastic Surgery. 17(4):117-123.
- 2007 Plant, M.A., Scilley, C.G. (2007). Ulnar Artery Pseudoaneurysm in a Patient with Factor IX Deficiency (Hemophilia B). Canadian Journal of Plastic Surgery. 15(4):223-225.

# ABSTRACTS, POSTER AND PODIUM PRESENTATIONS

Plant, M.A., Mull, A., Novak, C.B., Mackinnon, S.E., Fish, J.S. (2014).
 Technology use and Communication Habits of Surgical Residents in Canada and the United States: A Comparison of Two Large Training Centers.
 Canadian Journal of Plastic Surgery. 22(2):134 Presented at The 68<sup>th</sup> Annual Meeting of the Canadian Society of Plastic Surgeons, June 27, 2014.
 Montreal, Quebec.



- Plant, M.A., Mull, A., Novak, C.B., Mackinnon, S.E., Fish, J.S. (2014).
   Personal Electronic Device use and Communication Habits of Surgical Residents in Canada and the United States: A Comparison of Two Large Training Centers. Podium Presentation given at The University of Toronto Division of Plastic and Reconstructive Surgery Annual Research Day, Toronto, Ontario, February 21, 2014. Toronto, Ontario.
- Plant M.A., Novak, C.B., von Schroeder, H., and McCabe, S. (2013). The
  Use of Smartphone Photography in Acute Hand Trauma Referrals. Canadian
  Journal of Plastic Surgery. 21(2):139. Presented at The 67th Annual Meeting
  of the Canadian Society of Plastic Surgeons, May 30, 2013. Calgary, Alberta.
- Plant, M.A., Fish, J.S. (2012). The Use of Personal Electronics, Email and the Internet in the Care of Surgical Patients. Canadian Journal of Plastic Surgery. 21(2):110 Presented at The 67th Annual Meeting of the Canadian Society of Plastic Surgeons, May 30, 2013. Calgary, Alberta.
- Plant M.A., Novak, CB., von Schroeder, H., and McCabe, S. (2013). The Use
  of Smartphone Photography in Acute Hand Trauma Referrals Podium
  Presentation given at The University of Toronto Division of Plastic and
  Reconstructive Surgery Annual Research Day, Toronto, Ontario, February
  22, 2013. Toronto, Ontario.
- Viana R, Chan T, Lanc D, Soo S, Burke C, Zurawska U, Zurawska J, Krause J, Plant M.A., Speechley M. (2012). Effects of structured debate versus standard small-group discussion in medical ethics education. Poster 54, Canadian Conference on Medical Education, April 2012. Banff, Alberta.
- Plant, M.A., Fish, J.S. (2012). The Use of Personal Electronics, Email and the Internet in the Care of Surgical Patients. Podium Presentation given at The University of Toronto Division of Plastic and Reconstructive Surgery Annual Research Day, Toronto, Ontario, February 10, 2012. Toronto, Ontario.
- Chan, T., Holding, C., Krause, J., Plant, M.A., Soo, S., Viana, R., Zurawska, J., Zurawska, U., Speechley, M., Flanagan, P. (2007). A Systematic Review of Small-Group Learning Methods with Respect to Ethical Issues. Poster presented at The Margaret P. Moffat Graduate Research Day, March 22, 2007. London, Ontario

# **CLINICAL TRIALS**

 Plant, M.A., Antonyshyn, O., Fialkov, J. Hair Regrowth After Bicoronal Incision. A Randomized Blinded Comparison of Hair Growth Following Either Beveled or Standard Bi-coronal Scalp Incisions. Clinicaltrials.gov Identifier NCT0155741.
 2012 - Present

# REFERENCES AVAILABLE UPON REQUEST