# **CURRICULUM VITAE**

# Name: Laurie Margaret McLaughlin

Home Address: 94 Northshore Blvd W Burlington, ON, L7T 4G3

Business Address: 323 Kerr Street Suite 209 Oakville, ON Canada L6K 3B6 e-mail address: laurie@proactivehealth.ca web page: www.proactivehealth.ca, www.MandDproHealth.com T: 905-338-2898, F: 905-849-7396

# **Professional Education/Degrees**

1979	Loyalist Collegiate and Vocational Institute, Kingston, ON
1982	Mohawk College/McMaster University, Hamilton, ON Diploma in Physiotherapy
1983	McMaster University, Hamilton, ON Bachelor of Health Science in Physiotherapy
1988	Advanced Diploma in Orthopaedics with Distinction, Canada
2000	Certification in Contemporary Medical Acupuncture, McMaster University, Hamilton, ON
2005	Capnography Certification, Mindful Physiology Institute Boulder, CO
2007	Andrews University, Berrien Springs, MI Doctor of Science in Physical Therapy

# **Current Status at McMaster**

Assistant Clinical Professor, School of Rehabilitation Science

# **Professional Organizations**

College of Physiotherapists of Ontario, Canada College of Physical Therapists of British Columbia, Canada Fellow Canadian Academy of Manipulative Physiotherapists, 1988 Member of Canadian Physiotherapy Association, 1984 Member of the Canadian Spine Society, 2011

# **Employment History**

2013 – present	McLaughlin ProActive Health Group / ProActive Health Oakville, Owner Director, 323 Kerr Street Suite 209, Oakville, ON
2010 – present	M+D ProHealth, Owner and Director, 323 Kerr Street Suite 209, Oakville, ON
2008 – present	Advanced Practice Physiotherapist determining suitability for spinal surgery
2006 – 2010	LifeMark Health, Senior consultant Nationally and Oakville, ON
2004 - present	ProActive Education, Oakville, ON Owner/Director, providing continuing education to health professionals.
1998- 2006	ProActive Therapeutics, 135 Lakeshore Rd. West, Oakville, ON Owner/Director, physiotherapist Employed 4 physiotherapists, 2 kinesiologists, and 2 front desk staff.
1990- 2006	ProActive Physiotherapy, 875 Main St. West, Hamilton, ON Owner/Director, physiotherapist Employed 7 physiotherapists, 3 kinesiologists, and 3 front desk staff.

# **Professional Appointments:**

2009 – present	Assistant Clinical Professor, School of Rehabilitation Science McMaster University, Hamilton, Ontario, Canada
1992- 2010	Faculty / Examiner for Canada Canadian Physiotherapy Association, Orthopaedic Division
1992- present	Faculty/Examiner North American Institute of Manual Therapy, (United States)
1999- 2005	Chief Examiner for Canada Canadian Physiotherapy Association, Orthopaedic Division

# **Consultative and Advisory Positions held:**

2011-present	Member of the Canadian Spine Society
2009- present	Member Spine Expert Panel, Ministry of Health, Government of Ontario
2002- present	Member of HaNSA, Head and Neck, Shoulder and Arm Special Interest Group, McMaster University, Hamilton, Ontario

# 1997-2002 Clinical Expert on Committee to Establish Clinical Practice Guidelines for Spinal Manipulation in Ontario, College of Physiotherapy

# **Areas of Interest**

Ongoing interest in the advancement and promotion of spinal care research and orthopaedic innovations. Interest in teaching and mentoring in the field of orthopaedics, capnography, spinal manipulation, fascial systems, and advance practice physiotherapy.

#### Awards Eleanor Graham Hunter Lees Book Award for Excellence in Neurology, 1982

# **Courses Taught**

1987- Present	Continuing education courses for physiotherapists in orthopaedics for the Canadian Physiotherapy Association (throughout Canada)
1992- Present	Develops and instructs for the North American Institute of Orthopaedic Manual Therapy in United States
2003- 2006	Provided Musculoskeletal Education sessions to Family Practice Residents at McMaster University, Hamilton, Ontario
1989-present	Instructor of Continuing Education Workshops in Jamaica, Australia and Europe
1987 – Present	Taught over 3800 hours of continuing education to more than 2000 students

# **McMaster Involvement**

Rehabilitation Science 2012 – present RS715 Advanced OMPT Specialization

- Program Development for Advanced OMPT program
- Basic Spinal Manipulation Workshop
- Labs advanced back assessment; capnography; ultrasound
- Advanced Spinal Manipulation Workshop
- Module Development and Case-Based Discussion
- Clinical Mentorship

# Supervisorships

# Student Projects:

2016:

External Reviewer for MSc Thesis. Siedlecki P. The Effects of Neurocognitive and Physical Tasks on End-Tidal Carbon Dioxide Levels and Respiratory Rate in Persistent-Concussion Symptoms

2009:

Baker L, Hosseinpour S, Jones PC, Ryder HH, Vandenberg A. Investigating the Inter-rater and Intra-rater Reliability of Capnography. MSc Physical Therapy, McMaster University. Supervisors: LM McLaughlin, CH Goldsmith

2010:

Craig JD, Hodgins AP, Kapteyn M, Thomas KJ. The inter-rater and intra-rater reliability of capnography based on varied levels of training. MSc Physical Therapy, McMaster University. Supervisors: LM McLaughlin, CH Goldsmith

2013: Lindsey Freiburger. Effective Exercise Prescription For Improving Function In Adults With Chronic Pain. Faculty Advisor: Laurie McLaughlin

# Publications

**McLaughlin L**. In: Chaitow L, ed. *Recognizing and Treating Breathing Disorders A Multidisciplinary Approach*. Second ed: Elsevier; 2014:147-154; 225-232

**McLaughlin L.,** Goldsmith, C., Coleman, K. Breathing Evaluation and retraining as an adjunct to manual therapy. Manual Therapy 16 (2011) 51-52

McLaughlin, L (2011) Breathing in Cook et al. Movement. 353-354.

Gross AR, Haines T, Goldsmith CH, Santaguida L, **McLaughlin LM**, Peloso P, Burnie S, Hoving J; Cervical Overview Group (COG). Knowledge to action: a challenge for neck pain treatment. J Orthop Sports Phys Ther. 2009 May;39(5):351-63. Review.

MacDermid JC, Gross A, Galea V, MacDermid JC, **McLaughlin L**, Parkinson W, Woodhouse L.Developing biologically-based clinical assessments for physical therapy management of neck pain. The Journal of Orthopaedic and Sports Physical Therapy 35(4):388-399, 2009

**McLaughlin L**. Breathing Evaluation and Retraining in Manual Therapy. JBMT 2009; 13:276-282

Pierynowski M, **McLaughlin L**, Gross A, MacDermid J, Galea V. Innovative biological based assessment tools to differentiate and assess patients with neck pain. JOSPT May 2009 Vol.39(5)

Gross A, Haines T, Goldsmith CH, Santaguida P, **McLaughlin L**, Peloso P, Burnie S, Hoving J, Knowledge to Action: A Challenge about neck pain treatment. JOSPT May 2009 Vol.39(5)

MacDermid JC, Galea V, Teo A, Gross A, Pierrynowski M, **McLaughlin L**, HaNSA: Quantitative sensory testing has moderate reliability and validity in patients with mechanical neck disorders Quantitative sensory testing has moderate reliability and validity in patients with mechanical neck disorders. (Funded by CIHR Student ship) [Submitted to Physiotherapy Canada.]

Lee DG, Lee LJ, **McLaughlin L** Stability, Continence and Breathing: The role of fascia following pregnancy and delivery. JBMT (2008) 12: 333-348.

**McLaughlin L**. The use of capnography in orthopaedic physiotherapy. Orthopaedic Division Review Mar/Apr 2006.

MacDermid JC, Galea V, Pierrynowski M, Gross A, **McLaughlin L**. The relationship between quantitative sensory tests or electrophysiology and disability in patients with mechanical neck disorders. Orthopedic Division Review 2006;March/April:21.

Coppieters M.W., Kurz K., Mortensen T.E., Richards N.L., Skaret I.A., **McLaughlin L**, Hodges P.W. The impact of neurodynamic testing on the perception of experimentally induced muscle pain. Manual Therapy (2005) 10, 52-60

Pierrynowski MR, Gross A, Galea V, Miles M, **McLaughlin L**, McPhee C. Comparison of the long-range power-law correlations obtained from bilateral stride and head bobbing intervals in asymptomatic volunteers. Gait & Posture, 22(1), 46-50, 2005.

Gross AR, Kay M, Kennedy C, Gasner D, Hurley L, Yardley K, Hendry L., **McLaughlin L**. Clinical practice guideline on the use of manipulation or mobilization in the treatment of adults with mechanical neck disorders. Manual Therapy (2002) 7(4), 193-205

# **Scientific & Professional Presentations**

**McLaughlin L,** Dunlop, R.B., Three Year Experience of a Non-Physician Back Triage Program12<sup>th</sup> Annual Scientific Conference of the Canadian Spine Society, Tremblant, Quebec, 2013

**McLaughlin, L** Manual Therapy for the Fascia workshop. Third International Fascia Conference, Vancouver, BC, 2012

**McLaughlin, L**. The Relevance of Breathing in Persistent Pain. International Federation of Orthopaedic Manipulative Therapists Symposium, Invited Speaker, Quebec City, Quebec, 2012

**McLaughlin, L.** Advanced Practice: Evidence of Effectiveness. Canadian Physiotherapy Association Annual Conference, Invited Speaker, Whistler B.C., 2011

**McLaughlin, L.** Pearson, N., Walton, D. The evidence to support a new perspective on physiotherapy pain management. Annual Conference of the Canadian Pain Society, Niagara Falls, Ontario, 2011

**McLaughlin, L.** Dunlop R.B., Improved access and resource management in spine care. Orthopaedic Expert Panel Forum, Toronto, Ontario, 2011

**McLaughlin, L.** Can a Qualified Non-Physician Expert Predict the Usefulness of MRI Scans in Patients with Back Related Complaints. 11<sup>th</sup> Annual Scientific Conference of the Canadian Spine Society, Quebec City, Quebec, 2011

**McLaughlin, L.** Dunlop R.B., Advanced Practice in Spinal Care. Ontario Physiotherapy Association Conference, Toronto, Ontario, 2010

**McLaughlin, L.** Dunlop R.B., Goldsmith C.H., Non – Physician Triage in Patients with Back Pain, Sciatica and Spinal Stenosis. Tenth Annual Scientific Conference of the Canadian Spine Society, Lake Louise, Alberta, 2010

**McLaughlin L.** Breathing Evaluation and Retraining as an Adjunct to Manual Therapy. International Conference on Movement Dysfunction, Edinburgh, Scotland, 2009

**McLaughlin L.** Breathing Evaluation and Management. Canadian Association of Naturopathic Doctors National Symposium, Montreal PQ, 2009

**McLaughlin L.** Incorporating Breathing in Neuromusculoskeletal Management. Nordic Association of Orthopaedic Manipulative Therapists, Gothenburg Sweden, 2009

**McLaughlin L**. Incorporating the Fascial System into a Clinical Reasoning Framework. Orthopaedic Symposium, Canadian Physiotherapy Association, Montreal PQ, 2008

**McLaughlin L**, Goldsmith CH. Is There a Connection Between Non Responsive Neck or Back Pain Patients and Altered Respiratory Chemistry: a Case Series. Orthopaedic Symposium, Canadian Physiotherapy Association, Montreal PQ, 2008

**McLaughlin L**, Goldsmith CH. Is There a Connection Between Non Responsive Neck or Back Pain Patients and Altered Respiratory Chemistry: a Case Series. International Federation of Orthopaedic Manipulative Therapists Symposium, Winner Best Interactive Poster Presentation, Rotterdam Holland, 2008

**McLaughlin L.** The Role of Focused Manipulation in Back Pain. North American Institute of Orthopaedic Manipulative Therapy Symposium on Spinal Manipulation, Portland OR, 2008

**McLaughlin L.** Goldsmith CH. Altered Respiration in a Case Series of Low Back / Pelvic Pain Patients. 6<sup>th</sup> Interdisciplinary World Congress on Low Back and Pelvic Pain. Barcelona Spain 2007.

**McLaughlin L.** Fascia, Altered Breathing and Pregnancy. First International Fascia Conference Harvard University, Boston, MA, 2007.

**McLaughlin L**. The role of altered breathing in neck pain. HaNSA Cervical Workshop, WCPT, Vancouver BC 2007.

**McLaughlin L**. Breathing evaluation and management in orthopaedic physiotherapy. Keynote Address, National Orthopaedic Symposium, Calgary AB, 2006.

Hodges P.W., **McLaughlin L**., Souvlis T., Coppieters M.W. Does experimental pain demonstrate similar characteristics to contraction, stretch and compression as clinical pain? Poster presentation, 2005, London, ON.

Pierrynowski M, Gross A, Galea V, MacDermid J, **McLaughlin L**, Graham N, Kumbhare D and Parkinson W. Sensitivity of the Neck-Walk Index to detect change in patients with mechanical neck disorders. The Changing Face of Physiotherapy, 2005 Orthopaedic Symposium, Canadian Physiotherapy Association, London, ON, October 2005.

MacDermid J, Galea V, Pierrynowski M, Gross A and **McLaughlin L**. The relationship between quantitative sensory tests or electrophysiology and disability in patients with mechanical neck disorders. The Changing Face of Physiotherapy, 2005 Orthopaedic Symposium, Canadian Physiotherapy Association, London, ON, October 2005.

Pierrynowski M, Galea V, MacDermid J, Gross A, Kumbhare D, Parkinson W, Teo A, Missiuna P, **McLaughlin L**, McPhee C, Graham N, Lee A and Marley T. The head and neck, shoulder, arm research group conceptual framework. The Changing Face of Physiotherapy, 2005 Orthopaedic Symposium, Canadian Physiotherapy Association, London, ON, October 2005.

Teo A, Galea V, MacDermid J, Gross A, **McLaughlin L** and Pierrynowski M. Performance of patients with mechanical neck disorder on a reach and grasp task: neural strategies. The Changing Face of Physiotherapy, 2005 Orthopaedic Symposium, Canadian Physiotherapy Association, London, ON, October 2005.

**McLaughlin L**, Popelas C. Altered respiration in an individual with pelvic instability. Poster Presentation, Scotland, 2005. Podium Presentation, London, ON, 2005.

**McLaughlin L**, Popelas C, Use of capnography to restore normal breathing in an orthopaedic caseload Poster Presentation, London, ON, October 2005.

Pierrynowski M., Kumbhare D., Galea V., Gross A., MacDermid J., **McLaughlin L**, HaNSA. The Neck-Walk Index: A new performance outcome measure that identifies patients with neck pain or stiffness. Presented at the 65th Annual Assembly of the American Academy of Physical Medicine & Rehabilitation, October 2004, Phoenix, AZ.

**McLaughlin L**. The impact of proximal positioning on pain perception: A clinician's journey to the research lab. Presented at the Canadian Physiotherapy Association - Orthopaedic Division 16th Annual National Symposium, St. John's, NF, 12 September 2004.

Guy S., McDowell J., Ruttan P., Stevenson B., Turner L., Vair R., with the Head and Neck, Shoulder & Arm Special Interest Group (HaNSA Members: Galea V., Graham N., Gross A., Kumbhare D., MacDermid J., Manto L., **McLaughlin L**, McPhee C., Parkinson W., Pierrynowski M.) (2004) The Neck-Walk Index identifies patients with mechanical neck disorders, 8<sup>th</sup> International Federation of Orthopaedic Manual Therapists Conference, 21-26 March 2004, Cape Town, South Africa.

Buck S., Cheung G., Lundquist L., Tang B., Zavitz K., with the Head and Neck, Shoulder & Arm Special Interest Group (HaNSA Members: Galea V., Graham N., Gross A., Kumbhare D., MacDermid J., Manto L., **McLaughlin L**, McPhee C., Parkinson W., Pierrynowski M.) (2004) Upper limb function in patients with mechanical neck disorders, 8<sup>th</sup> International Federation of Orthopaedic Manual Therapists Conference, 21-26 March 2004, Cape Town, South Africa.

Coppieters M. W., Skaret I. A., Richards N.L., Mortensen T.E., Kurz K., **McLaughlin L**, Hodges P.W., (2004) The Impact of proximal positioning on pain perception. Effect of neurodynamic testing on experimental muscle pain, 8<sup>th</sup> International Federation of Orthopaedic Manual Therapists Conference, 21-26 March 2004, Cape Town, South Africa.

Pierrynowski M., Galea V., Graham N., Gross A., Kumbhare D., MacDermid J., Manto L., **McLaughlin L**, McPhee C., Parkinson W. (2003). A new performance outcome measure, the Neck-Walk Index, to classify patients with neck pain or stiffness, Achieving Excellence Through Collaboration Conference, Sponsored by the Insurance Bureau of Canada and the Workplace Safety & Insurance Board, 18 Sept 2003, Toronto, ON

# **Continuing Education:**

2013 Thirteenth Annual Scientific Conference of the Canadian Spine Society, Tremblant, Quebec

Discover Physio Series, Oakville ON

Canadian Physiotherapy Association Conference, Montreal, Quebec

2012 Third International Fascia Conference, Vancouver, BC

2012 International Federation of Orthopaedic Manipulative Therapists Symposium, Quebec City, Quebec

2011 Eleventh Annual Scientific Conference of the Canadian Spine Society, Quebec City, QC

Canadian Pain Society Conference, Niagara Falls, ON

2010 The Neuro-Orthopaedic Institute - Neurodynamics and the Neuromatrix Conference, Nottingham, UK

North American Institute of Orthopedic Manipulative Therapy Symposium Chicago, IL

	North American Institute of Orthopedic Manipulative Therapy Symposium Dallas, TX
	Ontario Physiotherapy Association Conference, Toronto, ON
	Tenth Annual Scientific Conference of the Canadian Spine Society, Lake Louise, Alberta.
2009	Breathing Evaluation and Retraining as an Adjunct to Manual Therapy International Conference on Movement Dysfunction, Edinburgh, Scotland
	Breathing Evaluation and Management. Canadian Association of Naturopathic Doctors National Symposium, Montreal PQ
	Incorporating Breathing in Neuromusculoskeletal Management. Nordic Association of Orthopaedic Manipulative Therapists, Gothenburg Sweden
2008	North American Institute of Orthopaedic Manipulative Therapy Symposium on Spinal Manipulation, Portland OR, 8 hours
	Visceral Manipulation Practicum, Munich Germany, 12 hours
	International Federation of Orthopaedic Manipulative Therapists Symposium Rotterdam Holland, 35 hours
	Explain Pain, Lorimer Moseley, Hamilton ON, 7 hours
	Visceral Manipulation, Gail Wetzler, San Francisco CA, 24 hours
	Orthopaedic Symposium, Canadian Physiotherapy Association, Montreal PQ, 18 hours
2007	Continuum, Emilie Conrad, Montreal PQ, 24 hours
	World Congress on Physical Therapy, Vancouver BC, 30 hours
	Visceral Manipulation Workshop, Christoff Sommers, Vancouver BC, 30 hours
	First International Conference on Fascia Research, Harvard University, Boston MA, 16 hours
	World Congress on Low Back and Pelvic Pain, Barcelona Spain, 30 hours
	Functional Fascial Taping, Ron Alexander, Barcelona Spain, 4 hours
2006	Anatomy Trains Fascial Dissection Course, Tom Myers, Todd Garcia, Boulder, CO, 21 hours

Visceral Manipulation III, Christoff Sommers, Wapole, MN 32 hours

	Visceral Manipulation: Peripheral Nervous System, Christoff Sommers, Wapole, MN, 24 hours
2005	Capnography Certification Course, Dr. Peter Litchfield, Boulder, CO, 30 hours
	Visceral Manipulation I, Christoff Sommers, Wapole, MN 24 hours
	Clinical Reasoning. Erl Pettman Oakville ON, 15 hours
2004	Lower Extremity Fascia Dissection Course, Dr. Guy Voyer, Queens University, Kingston, ON, 24 hours
	Motor Control for Lumbar Spine & Pelvis, Motor Control for the Thorax, Linda Joy Lee, Oakville, ON, 15 hours each
	World Congress on Low Back and Pelvis Pain, Melbourne, Australia, 15 hours
	Breathing Pattern Disorders, Leon Chaitow, Melbourne, Australia, 7 hourS
	Workshop on Overbreathing, Peter Litchfield, Oakville, ON, 5 hours
2003	Hyperventilation Syndrome, John Oldham, Oakville, ON, 20 hours
	Trunk Fascial Dissection Course, Guy Voyer, Queens University, Kingston, ON, 24 hours
2002	Assessment & Treatment of the Shoulder, Lyn Watson, Montreal, PQ, 20 hours
	Integration of the Spine & Shoulder Course, Erl Pettman, Oakville, ON, 20 hours
	Fascia Anatomy/Dissection Course, Guy Voyer, Kingston, ON, 20 hours
2001	Stott Pilates Certification, Intensive Mat, 40 hours participation, Reformer, 50 hours participation, Toronto, ON
	Pain/Neural Tension, Advanced Course, David Butler, Oakville, ON, 15 hours
	Headache Course, Gwen Jull, Hamilton, ON, 15 hours
	Advanced Shoulder Course, Lyn Watson, Ottawa, ON 20 hours
	Continuum Exercise/Movement Course, Toronto, ON, 15 hours
2000	Medical Acupuncture, Level 1-6, McMaster University, Hamilton, ON, 200 hours

1984-1999 Extensive courses in orthopaedics and advanced manual therapy, acupuncture and pilates.

# Post-professional Preceptorships:

Diane Lee BSR, MCPA, FCAMP, Vancouver, BC, 1988