Philemon Tsang

Clinician-Scientist, BSc, MSc, MPT, PhD

**EDUCATION**

2014 - 2020 PhD in Health and Rehabilitation Science

Thesis Supervisor: Dr. Joy MacDermid

Thesis title: Assessment of Intrinsic Hand Neuromuscular Physiology

Western University, London, Ontario

2016 - 2018 Master of Physical Therapy

Western University, London, Ontario

2014 Masters of Science

Thesis Supervisor: Dr. Aimee J. Nelson

Thesis title: TMS for the Investigation of Somatosensory Afferent Input on Hand Control

McMaster University, Hamilton, Ontario

2012 Bachelor of Science (Honours Kinesiology)

University of Waterloo, Waterloo, Ontario

**PROFESSIONAL DEVELOPMENT**

2019 AA1: Foundations of Acupuncture

2018 Applied Motivational Interviewing and Coaching (Level I)

2018 Soft Tissue Release Training Workshop

2018 Mulligan Concept Lower Quadrant

2015 Western Teaching Support Centre- Teaching in the Canadian Classroom

2011 Standard First Aid and CPR-C, Lifesaving Society

2006 National Lifeguard Services, Lifesaving Society

**EMPLOYMENT- ACADEMIC AND TEACHING**

**Feb 2019 – May 2019 – Limited Duties Teaching (Clinical Associate)**

Western University, London ON

Orthopedic Physiotherapy Course (Clinics I)

**Sept 2018 – Nov 2018 – Limited Duties Teaching (Clinical Associate)**

Western University, London ON

Orthopedic Physiotherapy Course (Clinics II)

**Winter 2019 – Content Creator**

Entry to Practice Essentials, London ON

Physiotherapy Competency Exam (PCE) Preparation Course)

**Jan 2015 – May 2016 – Teaching Assistant**

Western University, London, ON

Occupational Therapy, Health and Rehabilitation Science

**Sept 2012 – Sept 2014 – Teaching Assistant**

McMaster University, Hamilton ON

Kinesiology Department

*Courses:*

* *Neural Control of Human Movement (KIN 3E03)*
* *Motor Control and Learning (KIN 1E01)*
* *Human Anatomy and Physiology I (KIN 1AA3/ 1YY3)*
* *Physical Activity for Special Populations (KIN 3B03)*

**April 2012 – Aug 2012 – Research Assistant**

Sunnybrook Hospital, Toronto, ON

Cognitive Neurology, Heart and Stroke Foundation

**May 2011 – Aug 2011 – Research Assistant**

University of Waterloo, Waterloo, ON

Kinesiology Department, Clinical Neuroscience

Neurophysiology in Sensorimotor Control

**May 2010 – June 2010 – Outdoor Education Intern (Island Natural Science School)**

Toronto District School Board, Toronto, ON

**Sept 2009 – December 2009 – Math/Science Tutor**

Centennial College, Toronto, ON

**ACADEMIC COMMUNITY SERVICE**

**Sept 2020- Present – Clinical Internship Supervisor**

Form and Function Clinic, Markham, ON

**Jan 2019 - Present – Journal of Hand Therapy Peer Reviewer**

Western University, London, ON

Health and Rehabilitation Sciences

* *17 reviews currently completed*

**July 2020 – Aug 2020 – Physiotherapy Student Clinical Instructor**

Form and Function Clinic, Markham, ON

**April 2020 – Master of Physical Therapy Admission External Reviewer**

Western University, London, ON

School of Physical Therapy

**June 2019 – Guest Speaker/Lecturer**

Western University, London, ON

School of Physical Therapy

**April 2019 – Master of Physical Therapy Admission External Reviewer**

Western University, London, ON

School of Physical Therapy

**Sept 2015 – Apr 2016 – Undergraduate Thesis Mentor**

Western University, London, ON

Kinesiology Department

**Sept 2014 – Apr 2015 – PhD Student Representative**

Western University, London, ON

Health and Rehabilitation Science Department

**EMPLOYMENT- CLINICAL PRACTICE**

**May 2020 –March 2021 – Registered Physiotherapist**

Inner City Family Health Team, Toronto ON

Family Health Team

**May 2020 –March 2021 – Registered Physiotherapist**

Form and Function Clinic, Markham ON

Outpatient Clinic

**Aug 2019 – May 2020 – Registered Physiotherapist**

Family Physiotherapy Center of London (LIHC), London ON

Community Health Center

**Oct 2018 – Aug 2019 – Registered Physiotherapist**

Family Physiotherapy Center of London, London ON

Outpatient Clinic

**May 2018 – August 2018 – Student Physiotherapist**

London Health Sciences Centre, London, ON

Medicine Unit, Victoria Hospital

**Apr 2018 – May 2018 – Student Physiotherapist**

Physiotherapy Alliance, Stratford, ON

Outpatient Clinic

**Mar 2018 – Apr 2018 – Student Physiotherapist**

CBI Health Centre- Sarnia, Sarnia, ON

Outpatient Clinic

**Nov 2017 – Dec 2017 – Student Physiotherapist**

St. Joseph’s Healthcare- Parkwood Institute, London, ON

Neurotrauma Rehabilitation, Outpatient Rehabilitation

**Jun 2017 – July 2017 – Student Physiotherapist**

London Health Sciences Centre, London, ON

Intensive Care Unit, University Hospital

**Jan 2009 – April 2009 – Physiotherapy Assistant**

Carlan Physiotherapy, Toronto, ON

**PEER-REVIEWED PUBLICATIONS**

### Tsang P, MacDermid J, Eventov M, Miller T, Doherty T, Ross D, Doherty C. Test-retest reliability of near-fibre jiggle in the ulnar intrinsic hand muscles. Clinical Neurophysiology. 131 (9), 2192-2199. Accepted June 2, 2020.

### Tsang P, Larocerie-Salgado J, MacDermid J, Miller T, Doherty T, Doherty C, Ross D. Post-operative Management and Rehabilitation Following the Supercharged End-to-Side Anterior Interosseous Nerve to Ulnar Motor Nerve Transfer: A Report of 3 Cases. Journal of Hand Therapy. Accepted April 2019. (In Press)

### Tsang P, MacDermid J, Eventov M, Miller T, Doherty T, Ross D, Doherty C. Test-retest reliability of near-fibre jiggle in the ulnar intrinsic hand muscles. Journal of Electromyography and Kinesiology. 49, 102349. Accepted December 1, 2019.

### Tsang P, Walton D, Grewal R, MacDermid J. Validation of the QuickDASH and DASH in Patients With Distal Radius Fractures Through Agreement Analysis. Archives of physical medicine and rehabilitation. 98 (6), 1217-1222. Accepted June 1, 2017.

### Tsang P, Bailey AZ, Nelson AJ. Rapid-Rate Paired Associative Stimulation over the Primary Somatosensory Cortex. PloS one. 10(3). Accepted September 23, 2015.

### Tsang P, Jacobs MF, Lee KGH, Asmussen MJ, Zapallow CM, Nelson AJ “Continuous theta-burst stimulation over primary somatosensory cortex modulates short-latency afferent inhibition”, Clinical Neurophysiology. Accepted February 21, 2014. [CLINPH-D-13-7282R1]

### Jacobs MF, Tsang P, Lee KGH, Asmussen MJ, Zapallow CM, Nelson AJ “[30 Hz Theta-burst Stimulation Over Primary Somatosensory Cortex Modulates Corticospinal Output to the Hand](http://www.sciencedirect.com/science/article/pii/S1935861X13004002)”, Brain Stimulation. Accepted December 15, 2013. (In Press) [[j.brs.2013.12.009](http://dx.doi.org.libaccess.lib.mcmaster.ca/10.1016/j.brs.2013.12.009)]

### Zapallow CM, Jacobs MF, Lee KGH, Asmussen MJ, Tsang P, Nelson AJ “Continuous theta-burst stimulation over the primary somatosensory cortex modulates interhemispheric inhibition”, NeuroReport. 24 (7), 394-398.

### Jacobs MF, Zapallow CM, Tsang P, Lee KGH, Asmussen MJ, Nelson AJ “Current direction specificity of continuous theta-burst stimulation in modulating human motor cortex excitability when applied to somatosensory cortex”, NeuroReport. 23 (6), 927-931.

### Premji A, Zapallow CM, Tsang P, Tang R, Jacobs MF, Nelson AJ “Influence of area 5 on interhemispheric inhibition”, NeuroReport 22 (18), 974-978.

**CONFERENCE PRESENTATIONS (\*presenter)**

1. **Tsang P**, Miller TA, Doherty TJ, Doherty CD, \*Bobos P, MacDermid J. “Assessment of age-related differences in decomposition-based quantitative electromyography in the first dorsal interosseous (FDI) and abductor digiti minimi (ADM) muscles”, International Federation of Societies for Hand Therapy (IFSHT) Congress , Berlin, Germany, June 2019 (Poster)
2. **\*Tsang P**, Miller TA, Doherty TJ, Doherty CD, MacDermid J. “Assessment of age-related differences in decomposition-based quantitative electromyography in the first dorsal interosseous (FDI) and abductor digiti minimi (ADM) muscles”, World Confederation for Physical Therapy Congress , Geneva, Switzerland, May 2019 (Poster)
3. **\*Tsang P**, Eventov M, Miller TA, Doherty TJ, Doherty CD, MacDermid J. “Test-Retest Reliability of Decomposition-based Quantitative EMG Near Fibre Jiggle in the Ulnar Intrinsic Hand Muscles”, Canadian Bone and Joint Conference 2018, London, Canada, May 2018 (Poster)
4. **\*****Tsang P**, Walton D, Grewal R, MacDermid J. “Validation of the QuickDASH and DASH in Patients With Distal Radius Fractures Through Agreement Analysis”, InterACTION Conference (Ontario Physiotherapy Association), Toronto, Canada, March 2017 (Poster)
5. \* **Tsang P**, Walton D, Grewal R, MacDermid J. “Validation of the QuickDASH and DASH in Patients With Distal Radius Fractures Through Agreement Analysis”, Canadian Bone and Joint Conference 2016, London, Canada, April 2016 (Poster)
6. **\*Tsang P**, Jacobs MF, Lee KGH, Zapallow CM, Asmussen MJ**,**Nelson AJ "Effects of 30Hz continuous theta-burst stimulation over primary somatosensory cortex on short-latency afferent inhibition", Society for Neuroscience Annual Meeting, San Diego, USA, November 2013 (Poster)
7. **\*Tsang P**, Jacobs MF, Lee KGH, Zapallow CM, Asmussen MJ**,**Nelson AJ "Investigating the effects of modified 30Hz cTBS applied over primary somatosensory cortex (SI)", Exercise and Neuroscience Group, Oshawa, Canada, June 2013 (Oral Presentation)
8. **\*Tsang P**, Jacobs MF, Lee KGH, Zapallow CM, Asmussen MJ**,**Nelson AJ "Investigating the effects of modified 30Hz cTBS applied over primary somatosensory cortex (SI)", Southern Ontario Neuroscience Association, Waterloo, Canada, May 2013 (Poster)
9. \*Asmussen MJ,Zapallow CM, Jacobs MF, Lee KGH, **Tsang P**, Nelson AJ. “Changes in short-latency afferent inhibition during movement preparation”, Canadian Association for Neuroscience, Toronto, Canada, May 2013 (poster presentation)
10. \*Asmussen MJ, Zapallow CM, Jacobs MF, Lee KGH, **Tsang P**, Nelson AJ. “Non-selective change in short latency afferent inhibition during movement preparation”, Progress in Motor Control, Montreal, Canada, July 2013 (poster presentation)
11. \*Asmussen MJ, Zapallow CM, Jacobs MF, Lee KGH, **Tsang P**, Nelson AJ. “Task and Muscle specific effects of short-latency afferent inhibition”, Society for Neuroscience, San Diego, USA, November 2013 (poster presentation)
12. Zapallow CM, Asmussen MJ, \***Tsang P**, Jacobs MF, Lee KGH, Nelson AJ. “Influence of primary somatosensory cortex on interhemispheric inhibition”, Southern Ontario Neuroscience Association, Waterloo, Canada, May 2013 (poster presentation)
13. \*Zapallow CM, Asmussen MJ**,** **Tsang P**, Jacobs MF, Lee KGH, Nelson AJ. “Influence of primary somatosensory cortex on interhemispheric inhibition”, Canadian Association for Neuroscience, Toronto, Canada, May 2013 (poster presentation)
14. \*Jacobs MF, **Tsang P**, Lee KGH, Asmussen MJ, Zapallow CM, Nelson AJ. “Effect of 30 Hz continuous theta-burst stimulation on hand motor circuitry when applied over the primary somatosensory cortex”, Southern Ontario Motor Behaviour Symposium, Toronto, Canada, May 2013 (poster presentation)
15. \*Jacobs MF, **Tsang P**, Lee KGH, Asmussen MJ, Zapallow CM, Nelson AJ. “Effect of 30 Hz continuous theta-burst stimulation on intracortical circuitry of the primary motor cortex in humans”, Southern Ontario Neuroscience Association, Waterloo, Canada, May 2013 (poster presentation)
16. \*Jacobs MF, **Tsang P**, Lee KGH, Asmussen MJ, Zapallow CM, Nelson AJ. “The effects of 30 Hz continuous theta-burst stimulation on human primary somatosensory cortex”, Canadian Association for Neuroscience, Toronto, Canada, May 2013 (poster presentation)
17. \*Jacobs MF, **Tsang P**, Lee KGH, Asmussen MJ, Zapallow CM, Nelson AJ. “The influence of primary somatosensory cortex on hand motor circuitry”, Exercise and Neuroscience Group, Oshawa, Canada, June 2013 (oral presentation)
18. \*Lee KGH, **Tsang P**, Jacobs MF, Zapallow CM, Asmussen MJ, Nelson AJ “The investigation of 30 Hz continuous theta-burst stimulation over the primary somatosensory cortex on tactile perception”, Canadian Association for Neuroscience, Toronto Canada, May 2013 (poster presentation)

**SCHOLARSHIPS**

2016 – 2019 CIHR Canada Graduate Scholarship - Doctoral ($90000)

2016 – 2018 Western Doctoral Excellence Research Award ($10000)

2007 Merit Scholarship, University of Waterloo ($1000)