



**West Park**  
HEALTHCARE CENTRE

**get  
your  
life  
back**

## **2018-2019 Research Activities**

1.0 PEER REVIEWED PUBLICATIONS .....	2
2.0 PRESENTATIONS AT LOCAL-NATIONAL-INTERNATIONAL MEETINGS .....	4
3.0 NEW STUDIES .....	6
4.0 AWARDS .....	7

The following report details West Park's research activities separated by study type/event and research themes.

## 1.0 PEER REVIEWED PUBLICATIONS

### Respiratory Rehab

Dolmage TE, Dubois-Webster J, Goldstein RS. Could scooting be a useful option for aerobic exercise in chronic obstructive pulmonary disease? *Respiratory Medicine*: X 2019; 1:100005.

Butler SJ, Ellerton L, Goldstein RS, Brooks D. Prevalence of lung cancer in chronic obstructive pulmonary disease: A systematic review. *Respiratory Medicine*: X 2019; 1:100003.

Lee AL, Dolmage TE, Rhim M, Goldstein RS, Brooks D. The Impact of Listening to Music During a High-Intensity Exercise Endurance Test in People With COPD. *Chest* 2018; 153:1134-1141.

Hill K, Cavalheri V, Mathur S, Roig M, Janaudis-Ferreira T, Robles P, Dolmage TE, Goldstein R. Neuromuscular electrostimulation for adults with chronic obstructive pulmonary disease. *Cochrane Database of Systematic Reviews* 2018; 5:CD010821.

Dolmage TE, Evans RA, Goldstein RS. Gait Speed: Validity of Measurement in Patients With Severe Chronic Lung Disease, Including Prognostic and Practical Implications. *Chest* 2018; 153:1101-1105.

Wshah A, Guilcher SJJ, Goldstein R, Brooks D. Prevalence of osteoarthritis in individuals with COPD: a systematic review. *International Journal of Chronic Obstructive Pulmonary Disease* 2018; 13:1207-1216.

Wshah A, Butler SJ, Patterson K, Goldstein RS, Brooks D. Let's Boogie: feasibility of a dance intervention in patients with chronic obstructive pulmonary disease. *Journal of Cardiopulmonary Rehabilitation and Prevention* 2019 [accepted].

Brode SK, Marras TK. NTM Disease Caused by *M. kansasii*, *M. xenopi*, *M. malmoense*, and Other Slowly Growing NTM. In: David E. Griffith, editor(s). *Nontuberculous Mycobacterial Disease*. 1. Humana Press; 2019. p. 325-368.

Hirama T, Brode SK, Marras TK. Radiologic types of *Mycobacterium xenopi* pulmonary disease: different patients with similar short-term outcomes. *Eur J Clin Microbiol Infect Dis*. 2018 Dec 14.

Marras TK, Cronin K, Marchand-Austin A, May K, Brode SK, Jamieson FB. Sputum smear microscopy predicting mycobacterial culture in Ontario: A population-based laboratory report. *Canadian Journal of Respiratory, Critical Care, and Sleep Medicine*. 2018 Oct 4(0):1-4.

Ahmad N, Ahuja SD, Akkerman OW, Alffenaar JC, Anderson LF, Baghaei P, Bang D, Barry PM, Bastos ML, Behera D, Benedetti A, Bisson GP, Boeree MJ, Bonnet M, Brode SK, Brust JCM, Cai Y, Caumes E, Cegielski JP, Centis R, Chan PC, Chan ED, Chang KC, Charles M,

Cirule A, Dalcolmo MP, D'Ambrosio L, de Vries G, Dheda K, Esmail A, Flood J, Fox GJ, Frechet-Jachym M, Fregona G, Gayoso R, Gegia M, Gler MT, Gu S, Guglielmetti L, Holtz TH, Hughes J, Isaakidis P, Jarlsberg L, Kempker RR, Keshavjee S, Khan FA, Kipiani M, Koenig SP, Koh WJ, Kritski A, Kuksa L, Kvasnovsky CL, Kwak N, Lan Z, Lange C, Laniado-Laborin R, Lee M, Leimane V, Leung CC, Leung EC, Li PZ, Lowenthal P, Maciel EL, Marks SM, Mase S, Mbuagbaw L, Migliori GB, Milanov V, Miller AC, Mitnick CD, Modongo C, Mohr E, Monedero I, Nahid P, Ndjeka N, O'Donnell MR, Padayatchi N, Palmero D, Pape JW, Podewils LJ, Reynolds I, Riekstina V, Robert J, Rodriguez M, Seaworth B, Seung KJ, Schnippel K, Shim TS, Singla R, Smith SE, Sotgiu G, Sukhbaatar G. Treatment correlates of successful outcomes in pulmonary multidrug-resistant tuberculosis: an individual patient data meta-analysis. *Lancet*. 2018 Sep 8. 2018 Sep 8;392(10150):821-834. doi: 10.1016/S0140-6736(18)31644-1.

Aznar ML, Zubrinic M, Siemienowicz M, Hashimoto K, Brode SK, Mehrabi M, Patsios D, Keshavjee S and Marras TK. Adjuvant lung resection in the management of nontuberculous mycobacterial lung infection: A retrospective matched cohort study. *Respir Med*. 2018 Sep. 2018 Sep;142:1-6. doi: 10.1016/j.rmed.2018.07.003. Epub 2018 Jul 9.

### Spasticity

Phadke CP, Veira L, Mathur S, Cipriano Jr. G, Ismail F, Boulias C. Impact of Passive Leg Cycling in Persons With Spinal Cord Injury: A Systematic Review. *Topics in Spinal Cord Rehabilitation* 2019 Winter;25(1):83-96. doi: 10.1310/sci18-00020. Epub 2018 Dec 12. (Full-Text). COLLABORATION

Phadke CP, Schwartz J, Vuagnat H, Philippou E. The ABC's for Nutrition Post-Stroke: An Evidence-Based Practice Guide for Rehabilitation Professionals. *Arch Phys Med Rehabil*. 2018 Oct;99(10):2125-2127. doi: 10.1016/j.apmr.2018.05.003. Epub 2018 (Full-Text). <https://doi.org/10.1016/j.apmr.2018.05.003>.

Boulias C, Ismail F, Phadke CP, Bagg S, Bureau I, Charest S, Chen R, Cheng A, Ethans K, Fink M, Finlayson H, Gulasingham S, Guo M, Haziza M, Hosseini H, Khan O, Lang M, Lapp T, Leckey R, Li Pi Shan R, Liem N, Lo A, Mason M, McNeil S, McVeigh S, Miller T, Mills P, Naud P, O'Connell C, Petitclerc M, Prevost J, Reebye R, Richardson D, Satkunam L, Sharma S, Short C, Sirois G, Unarket M, Wein T, Wilkins K, Winston P. A Delphi-based Consensus Statement on the Management of Anticoagulated Patients with Botulinum Toxin for Limb Spasticity. *Arch Phys Med Rehabil*. 2018 Nov;99(11):2183-2189. doi: 10.1016/j.apmr.2018.04.023. Epub 2018 May 24 (Full-Text) PMID: 29803825

### Amputee Rehab

W S Journeay, T Pauley, M Kowgier, M Devlin. Return to work after occupational and non-occupational lower extremity amputation. *Occupational Medicine*, Volume 68, Issue 7, October 2018, Pages 438-443

## 2.0 PRESENTATIONS AT LOCAL-NATIONAL-INTERNATIONAL MEETINGS

### Respiratory Rehab

Evans R, Ward T, Jones A, Trethewey R, Divall P, Singh S, Dolmage T, Lindley M, Steiner M. Change in VO<sub>2</sub>peak in response to aerobic training in patients with COPD: A meta-analysis. European Respiratory Society International Congress, Paris, France, September 15-19 2018

Evans R, Majd D, Dolmage TE, Hewitt S, Murphy A, Singh SJ, Bradding P, Green R. Dynamic hyperinflation in patients with severe asthma American Thoracic Society Conference, San Diego, CA, USA, May 18-23

Goldstein RS, Dolmage TE, Dubois-Webster J. Can Upright Partitioned Exercise, Propulsion of a 3-Wheeled Scooter, Alter Leg Muscle Activity and Shift the Relationship Between Breathing and Leg Heaviness in Patients With Chronic Obstructive Pulmonary Disease (COPD). American Thoracic Society Conference, San Diego, CA, USA, May 18-23

Brooks D. 1) Cardio-pulmonary Assessment & Novel Rehabilitation: Overview. 2) Exercise in Stroke (keynote speaker). 3) Balance and Falls: Lessons Learned in Lung Disease with Implication to other Chronic Conditions. Physio Beirut 2018, Beirut, Lebanon, Oct 12-13 2018

Brooks D, Singh P, Bulter SJ. Patient activation and engagement in pulmonary rehabilitation Canadian Respiratory Conference, Vancouver, BC, Canada, April 12-14 2018

Brooks D and Patterson K, Wshah A, Butler SJ, Goldstein R "Let's Boogie": Feasibility of a dance intervention in patients with chronic obstructive pulmonary disease. Canadian Respiratory Conference, Vancouver, BC, Canada, April 12-14 2018

Brooks D, Butler SJ, Ellerton L, Goldstein RS. Prevalence of lung cancer in chronic obstructive pulmonary disease: A systematic review. Better Breathing Conference, Toronto, ON, Canada, January 23-26

Brooks D, Wshah A, Butler S, Patterson K, Goldstein R Let's Boogie: feasibility of a dance intervention in patients with chronic obstructive pulmonary disease. Better Breathing Conference, Toronto, ON, Canada, January 23-26

Stickland MK, Selzler A-M, Rodgers WM, Berry TR. Coping versus mastery modeling intervention to enhance self-efficacy in patients with COPD. Better Breathing Conference, Toronto, ON, Canada, January 23-26

Stickland MK, Selzler A-M, Rodgers WM, Berry TR. Coping versus mastery modeling intervention to enhance self-efficacy in patients with COPD.

Conference Name, City, Country, date: SCAPPS 2018 (Canadian Society for Psychomotor Learning and Sport Psychology), Toronto, ON, Canada, October 2018

Guilcher SJT and Brooks D, Miranda J, Underwood D, Kueper-Thomas M, Coulson D, Chansoo Park A, Butler S, Goldstein. Optimizing transitions of care for persons with chronic obstructive pulmonary disease (COPD). MSCT Student Research Day, Toronto, ON, Canada, 2018

Brooks D. Pulmonary Rehabilitation and Exercise Training. YiR 2018. Raermond, Netherlands (invited speaker) Dec 12 2018

Sabur NF, Brar M, Brode SK. Utilization of line probe assays for detection of multidrug resistant tuberculosis in Toronto, Canada. International Union of Tuberculosis and Lung Disease North American Regional Annual TB Conference. Vancouver, British Columbia, Canada. February 22, 2019.

Sabur NF, Brar MS, Wu L, Brode SK. Low dose aminoglycosides in the treatment of multidrug resistant tuberculosis. International Union of Tuberculosis and Lung Disease North American Regional Annual TB Conference. Vancouver, British Columbia, Canada. February 22, 2019.

Campbell, JR, Nsengiyumva P, Chiang L, Khadawardi H, Oxlade O, Rasberry H, Rea E, Romanowski K, Sabur NF, Sander B, Uppal A, Brode SK, Johnston JC, Schwartzman K. The cost of multidrug-resistant tuberculosis in Canada. International Union of Tuberculosis and Lung Disease North American Regional Annual TB Conference. Vancouver, British Columbia, Canada. February 22, 2019.

Brode SK, Chung H, Campitelli M, Kwong JC, Marchand-Austin A, Winthrop KL, Jamieson FB, Marras TK. Prescribing patterns for Mycobacterium avium complex and M. xenopi pulmonary disease: A population based study. American Thoracic Society Annual International Meeting. San Diego, California, United States. May 22, 2018

Khadawardi H, Marras TK, Mehrabi M, Brode SK. Clinical efficacy and safety of fluoroquinolone containing regimens in patients with Mycobacterium avium complex (MAC) pulmonary disease. American Thoracic Society Annual International Meeting. San Diego, California, United States. May 22, 2018

### Spasticity

Mauti E, Phadke CP, Ismail F, Boulias C. Patterns of muscle selection and outcomes with botulinum toxin injection for stroke-related ankle plantar flexor spasticity: a systematic review. Canadian Association of Physical Medicine and Rehabilitation, CAPM&R 67th Annual Scientific Meeting, May 29 – June 1, 2019, Gatineau-Ottawa, Ontario, Canada

Zurawski E, Behm K, Dunlap C, Koo J, Ismail F, Boulias C, Reid S, Phadke CP. Inter-rater Reliability of the Modified Ashworth Scale tested Using Consistent Movement Speeds. American College of Rehabilitation Medicine, Annual Conference, 30 Sept – 3 Oct 2018, 2018, Dallas, Texas, USA

Boulias C, Ismail F, Phadke CP. Assessment of the early effects of botulinum toxin type a intramuscular injection on extensor digitorum brevis muscle in healthy adults. 2018 International Society of Physical and Rehabilitation Medicine World Congress, July 8-12, Paris, France

Suzanne Burns, Jaclyn Schwartz, Valerie Hill, Elena Philippou, Phadke CP, Laura Oppermann, Lauren Thomas. "Self-Management Interventions for Stroke Recovery and Recurrent Stroke Prevention". Symposium presentation, ACRM 2018 Annual Conference, 30 September - 3 October, Dallas, Texas, USA.

Phadke CP, Balasubramanian C, Bowden M, Rose D. From System Impairments to Participation Barriers: Gait Rehabilitation across the Spectrum". Symposium presentation, ACRM 2018 Annual Conference, 30 September - 3 October, Dallas, Texas, USA

Phadke CP, Sakel M, Leroi I. "International collaborations – 'research without borders'" Symposium presentation, ACRM 2018 Annual Conference, 30 September - 3 October, Dallas, Texas, USA

### 3.0 NEW STUDIES

#### Respiratory Rehab

Goldstein RS, Chapman K, Shapera S, Dolmage TE, Evans RA, Varadi R. Randomized Controlled Trial of Partitioned Aerobic Exercise Training of Patients with Idiopathic Pulmonary Fibrosis

Expected duration: 2 years

Partners: Toronto Western Hospital

Funding source: PSI Foundation

Funding amount: \$185,500

Goldstein RS, Dolmage TE. Assistive Device to Improve Physical Performance in Patients with Very Severe Chronic Respiratory Disease – Evaluated using a Single-Case Series Experimental Design

Expected duration: 1 year

Partners: None

Funding source: None

Funding amount: NA

FitzGerald M, Kopec J, Poureslami I, Shum J, Goldstein RS. Development and validation of a Canadian version of health literacy measurement tool for airway chronic disease management

Expected duration: 6 months

Partners: University of British Columbia (lead site)

Funding source: NA

Funding amount: NA

Brooks D, Butler S, Li K, Goldstein R. Prevalence of comorbidities in patients with respiratory disease and their impact on pulmonary rehabilitation outcomes

Expected duration: 1 year

Partners: NA

Funding source: NA

Funding amount: NA

Johnston JC, Brode SK, Greenaway CA, Janjua NZ, Schwartzman K. From Patient to Policy: Using data to drive TB elimination in Canada's foreign born population. (*not previously reported*)

Expected duration: 3 years (July 2017 – June 2020)

Funding source: Canadian Institutes of Health Research (CIHR). Project Grant Competition.

Funding amount: 1,208,699 CAD. *Ontario budget: 275,000.00 CAD.*

## Spasticity

Mills P, Ip A, Ismail F, Phadke CP, Boulias C. Survey Of Adjunct Therapies Following Botulinum Neurotoxin (BoNT) Injection.

Expected duration: 1 year

Partners: NA

Funding source:

Funding amount:

Phadke CP, Ismail F, Boulias C. Delphi survey for consensus on early BoNTA intervention in persons post-stroke.

Expected duration: 1 year

Partners: NA

Funding source: NA

Funding amount: NA

Farid N, Phadke CP, Ismail F, Boulias C. Patient or client: preferred terminology.

Expected duration: 1 year

Partners: NA

Funding source: NA

Funding amount: NA

Reid S, Phadke CP, Ismail F, Boulias C. A case study to describe a novel way of assessing balance before and after botulinum toxin injection in a patient with lower limb spasticity

Expected duration: 1 year

Partners: PhD and Associations; York University

Funding source: NA

Funding amount: NA

## Amputee

MacKay C, Dilkas S, Devlin M, Hitzig S, Mayo A. Exercise and Physical Activity Interventions for People with Lower Limb Loss: A Scoping Review.

Duration: 1 year

Funding source: NA

Funding amount: NA

Hitzig S, MacKay C, Dilkas S, Devlin M, Cimino S, Sale J, Mayo A. Understanding the experiences of individuals living with a lower limb amputation in the community across Ontario.

Duration: 1 year

Funding source: NA

Funding amount: NA

## 4.0 AWARDS

International Networking Group Poster Award: American College of Rehabilitation Medicine, Annual Congress, Dallas, TX, USA, 29th October 2018