

Aging, Rehabilitation & Geriatric Care (ARGC) Research Centre
St. Joseph's Parkwood Hospital

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A MESSAGE FROM DR. ROB PETRELLA –

With this being our first issue for 2013, I am very pleased to report that our ARGC research teams have had a very busy first quarter of research activities including successful grant funding, student awards, publications and presentations.

On behalf of the ARGC program, we extend a warm welcome our new research personnel, who have recently joined us, which you can read more about on page 2.

It is also my pleasure to congratulate our students who have recently been honoured for their research accomplishments as well as research career exploration. Refer to the **Students' Corner** on page 3 to read more about what our young researchers have been doing.

This year's **ARGC/FHS Symposium** entitled, "*Research to Action: Technology, Innovation & Health*" was a very successful day, which was held in February at Elborn College, Western University. Both Dean Weese and I would like to personally thank our Symposium Planning Committee for organizing an excellent program as well as all those who participated! We look forward to providing you with details over the coming months regarding next year's **2014 Symposium**, which will be hosted by ARGC here at Parkwood Hospital. Meanwhile, please mark **Friday, February 7th, 2014** on your calendars.

To find out more about the latest ARGC research activities and other upcoming events, I encourage you to please take a few moments to read the rest of this issue.

~ Cheers ~
Rob



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COMMUNICATION UPDATES. . .

“Welcome “New Research Personnel ~

We would like to extend a warm welcome to our new research personnel, who have recently joined our ARGC program.

Geriatric Medicine:

In early January, **Patricia Sargeant** joined Dr. Michael Borrie and the Geriatric Clinical Trials Group as a Research Coordinator.

Elyse Gordon received a warm welcome by Dr. Manuel Montero Odasso, and the staff at the Gait and Brain Lab. Elyse is a first year Masters’ student in Kinesiology and will be a member of the Gait and Brain lab for two years as she works to develop her thesis on Gait Cognition and Dual Tasking.

In addition, a warm welcome was also extended to **Lauren Malott**, who will be working as Dr. Montero-Odasso’s new medical secretary.

Healthy Aging:

Matthew Pizzuti joined Dr. Rob Petrella’s Healthy Aging Team as a Research Assistant, for the HM² Study.

NOTABLE ACCOMPLISHMENTS . . .

Dr. Iris Gutmanis participated as a poster judge for the second annual London Health Research Day, which was held at the London Convention Centre on March 19th.



The Electronic Theses and Dissertations (ETD) project at Western University is a collaborative effort between the School of Graduate and Postdoctoral Studies and Western Libraries. One of the benefits is it has facilitated worldwide accessibility to Western graduate student research. The most popular thesis download for January 2013 across the entire university with 738 downloads was the MSc thesis of **Lauren Friedman** (supervisors Dr. Mark Speechley and **Dr. Robert Teasell**) entitled “*Evaluating the Montreal Cognitive Assessment (MoCA) and the Mini Mental State Exam (MMSE) for Cognitive Impairment Post Stroke: A Validation Study Against the Cognistat*”. The Western Electronic Thesis and Dissertation Repository was initiated in August 2010 and now holds 1,116 Master’s and Doctoral Theses; Lauren’s thesis is the only one in the top ten from the Faculty of Medicine and although published in June 2012 it is ranked fifth with 2,492 downloads.

Dr. Teasell was asked to join the *Center for Stroke Recovery (CSR)*. The *Center of Stroke Recovery* is a multi-disciplinary, multi-site research centre including six partners:

- Heart and Stroke Foundation (not-for-profit corporation)
- Baycrest (research centre)
- Sunnybrook Health Sciences Centre (research centre)
- University of Ottawa (research centre)
- Ottawa Hospital Research Institute (research centre)
- Memorial University of Newfoundland (research centre)

CSR scientists are associated with one of the above research partners or with other leading research institutions across North America. Scientists are encouraged to collaborate in multidisciplinary teams to gain new insights into how people recover from stroke, and how to enhance the process.

Dr. Teasell was a keynote speaker at Opening Symposium for the *Bundag Clinical Neuroscience Institute*, Seoul National University Bundag Hospital, Seoul, South Korea, March 23, 2013.



Dr. Teasell was invited as visiting professor at *Seoul National University Bundag Hospital*, Seoul, South Korea, March 26, 2013.

STUDENTS' CORNER. . .

Students Explore “Cognitive Vitality”

What do **Mike MacKinley** (fourth year undergraduate, Department of Psychology, King’s University College), **Katrina Richter** (third year, School of Nursing, Western University) and **Theone Patterson** (Predoctoral Resident in Clinical Psychology) have in common? All are completing or commencing training experiences at Parkwood Hospital under the supervision of **Dr. Maggie Gibson**, and all are focusing their attention of the emerging concept of cognitive vitality as a resource for aging well.

Each student is exploring the literature and consulting with colleagues to deepen their understanding and broaden their perspectives. Thanks are extended to **Drs. Iris Gutmanis** and **Margaret Weiser** among others in the Parkwood community for their support of this inter-professional learning agenda.

The specific goals and objectives each student is pursuing (education, knowledge translation, research) are aligned with the requirements of their respective placements. Together, the sum of their efforts will enrich ongoing attention within the Care of Older Adults Research Program and its

affiliated clinical programs, Veterans Care and Specialized Geriatric Services, to St. Joseph's strategic focus on cognitive vitality.

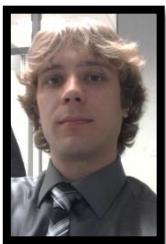
The 2012 SciVerse ScienceDirect Archives of Physical Medicine and Rehabilitation Hottest Articles List (January-December)



Congratulations to **Anna Chudyk**, former Master's of Science graduate student with **Dr. Rob Petrella**, who was recently notified in March that her article entitled, "**Systemic Review of Hip Fracture Rehabilitation Practices in the Elderly**" • Review article *Archives of Physical Medicine and Rehabilitation, Volume 90, Issue 2, February 2009, Pages 246-262*. Chudyk, A.M.; Jutai, J.W.; Petrella, R.J.; Speechley, M., was included in the **Top 25 Hottest Articles of 2012** of the **2012 SciVerseDirectArchives of Physical Medicine and Rehabilitation Hottest Articles List (January-December)**.

The **Top 25 Hottest Articles of 2012** list highlights the most read articles in **Archives**, calculated by article downloads on SciVerse ScienceDirect during January to December; **Archives** publishes more articles annually than any other rehabilitation journal, and is the most highly cited journal in the Rehabilitation category of the Thomson Reuters Journal Citation Reports.

Meanwhile, **Anna** is currently completing her PhD in Experimental Medicine under the supervision of Dr. Heather McKay at the University of British Columbia.



Michael Gregory, a PhD candidate from Rehabilitation Sciences, who is currently working with **Dr. Petrella** investigating the effects of a dual-task gait training and aerobic exercise program on cognitive, vascular, and mobility outcomes in community-dwelling older adults with cognitive impairment, but not dementia (CIND), was recently the recipient of the **Baycrest/Rotman Institute's 23rd Annual Neuroscience Conference Poster Award** for his poster entitled, "**HM2: Healthy Mind, Healthy Mobility: Dual-task Aerobic Exercise for Older Adults with Cognitive Impairment**". This year's conference "**Brain Plasticity & Neurorehabilitation**" was an international forum for the discussion of recent advancements in the field of neuroscience, ranging from the molecular and cellular changes that occur in aging and specific neurological disorders, behavioural and compensatory techniques for coping with brain injury, and novel imaging techniques and procedures that can be used to further characterize these conditions.

GRANTS & RESEARCH FUNDING. . .



Principal Investigator: Denise Connelly, PhD

Co-Investigators: Bert Chesworth, PhD; Iris Gutmanis, PhD

Study: Loss and recovery of mobility after hip fracture and surgical repair in community-living older adults

Funding Source: Academic Development Fund - Small Grants Competition

Amount: \$8,500 (2013)

Principal Investigator: Robert Teasell

Co-Investigators: Keith Sequeira K, Eldon Loh

Title: AFT Innovation Proposal: Rehabilitation Knowledge to Action Project (REKAP) 2 in Neurorehabilitation.

Funding Source: Alternate Funding Plan Southwestern Ontario

Funding Amount: \$190,000 (2013-2015)

Principal Investigator: Lisa Van Bussel

Co-Investigators: Alex Mihailidis, Amer Burhan, Ed Black, Babak Taati, Yani Ioannou, Tom Ross, Iris Gutmanis

Study: Evaluation of an automated fall detection and monitoring system

Funding Source: The Academic Medical Organization of Southwestern Ontario (AMOSO) AFP AHSC Innovation Grant

Amount: \$50,000 (2013)

PRESENTATIONS & INVITED LECTURES. . .

Keast D (January/March 2013)

Understanding antimicrobial dressings. Symposium sponsored by Coloplast Canada. Ottawa, ON; Calgary AB

Petrella R, Huikuri H (January 2013)

Innovation to reduce cardiovascular complications of diabetes at the intersection of discovery, prevention and knowledge exchange. Cardiovascular Complications of Diabetes Initiative. 4th and Final Reporting and Advisory Session (RAS). Gatineau-Ottawa, PQ

Petrella R (January 2013)

Community-based knowledge transfer of prescriptive exercise for patients with metabolic-syndrome. Cardiovascular Complications of Diabetes Initiative. 4th and Final Reporting and Advisory Session (RAS). Gatineau-Ottawa, PQ

Stuckey M, Kiviemi A, Tulppo M, Shoemaker K, Petrella R (January 2013)

Heart rate variability in the metabolic syndrome. Cardiovascular Complications of Diabetes Initiative. 4th and Final Reporting and Advisory Session (RAS). Gatineau-Ottawa, PQ

Teasell R (January 2013)

Intensity of stroke rehabilitation. West GTA Stroke Rehabilitation Conference, Mississauga, ON

Teasell R (January 2013)

Comparing MMSE to MOCA in relation to the Cognistat in a stroke rehabilitation population. Special Stroke Rehabilitation Rounds, Parkwood Hospital, London, ON

Borrie, M (February 2013)
Mild Cognitive Impairment, Alzheimer disease, Diagnosis, Treatment and Research. McCormick Home, London, ON

Borrie, M (February 2013)
Centre for Cognitive Vitality - A Vision in Progress. Geriatric Psychiatry Conference, London, ON

Diachun, L (February 2013)
Persistent pain in the older adult in Long Term Care. Behavioural Support Ontario Education Day, Stratford, ON

Gill D, Stuckey M, Shapiro S, Sabourin K, Hubbard R, Petrella R (February 2013)
A randomized clinical trial of mHealth supported exercise intervention in patients with metabolic syndrome. ARGC/FHS Symposium "Research to Action: Technology, Innovation & Health." London, ON

Goettl T, Guy S, Hsieh J, Lam T, Rehinhart-McMillan W, Walia S, Wolfe D (February 2013)
Prototyping a clinical decision making tool to guide pain management in spinal cord injury. ARGC/FHS Symposium "Research to Action: Technology, Innovation and Health," London, ON

Gregory M, Koblinsky N, Morton H, Gonzales L, Gill DP, Petrella R (February/March 2013)
HM2: Health Minds, Healthy Mobility. Dual-task aerobic exercise for older adults with cognitive impairment. ARGC/FHS Symposium "Research to Action: Technology, Innovation & Health." London, ON; Health & Rehabilitation Sciences, Western University, London, ON; 23rd Annual Neuroscience Conference: Brain Plasticity & Neurorehabilitation, Baycrest, Rotman Research Institute. Toronto, ON

Guy S, Kras-Dupuis A, Wolfe D, Hsieh J, SCI KMN (February 2013)
Pressure ulcer prevention best practice implementation in spinal cord injury: The London experience. GTA Rehab Network Best Practices Day 2013: Beyond the Traditional: New Ideas, New Roles, Toronto, ON

Guy S, Kras-Dupuis A, Wolfe D, Hsieh J, SCI KMN (February 2013)
Innovation in best practice implementation associated with pressure ulcer prevention in spinal cord injury rehabilitation: The London experience. ARGC/FHS Symposium "Research to Action: Technology, Innovation and Health," London, ON

Knight E, Stuckey M, Petrella R (February 2013)
What intensity of physical activity should we be prescribing to manage weight-related health risk? ARGC/FHS Symposium "Research to Action: Technology, Innovation & Health." London, ON; Ontario Long-Term Care Association Applied Research Day. Toronto, ON

Meyer M, O'Callaghan L, Kelloway L,...Teasell R (February 2013)
The impact of post-stroke rehabilitation on 2-year healthcare costs in Ontario, Canada: Can rehabilitation save us money? International Stroke Conference, Honolulu, Hawaii

Montero-Odasso M (February 2013)
Are falls a manifestation of brain failure? Victoria Hospital Medical Rounds, London, ON

Mowat J (February 2013)
All behaviours have meaning: Managing responsive behaviours in dementia care. Alzheimer Outreach Services Caregiver Education Series, McCormick Home, London, ON

Schuurman J, Luo Y, Ling C, Petrella R (February 2013)

The SMART Study: A pilot project examining tools for self-management among diabetes and prediabetes. ARGC/FHS Symposium "Research to Action: Technology, Innovation & Health." London, ON

Scovil C, Flett H, Nguyen L, Leber D, Brown J, Burns A and the SCI KMN (February 2013)

Implementing the Spinal Cord Injury Pressure Ulcer Scale (SCIPUS) Risk Assessment Scale. GTA Rehab Network Best Practices Day 2013: Beyond the Traditional: New Ideas, New Roles, Toronto, ON

Teasell R (February 2013) ~ *Keynote Speaker*

Stroke Rehabilitation. RehabTech Asia 2013, Singapore, Singapore

Teasell R (February 2013) ~ *Keynote Speaker*

Rehabilitation in 2020. RehabTech Asia 2013, Singapore, Singapore

Walia S, Ethans K, Hill D, Ho C, Keast D, Legassic M, ...Wolfe D, Worley S (February 2013)

Feasibility of an internet clinic for treating pressure ulcers in persons with spinal cord injury. ARGC/FHS Symposium "Research to Action: Technology, Innovation and Health," London, ON

Allen L, Richardson M, Meyer M, Ure D, Jankowski S, Teasell R (March 2013)

There's no place like home: A look at the effectiveness of Southwestern's Ontario's Community Stroke Rehabilitation teams. London Health Research Day: Driving Innovation Through Collaboration, London, ON

Graham LJ et al (*Supervisor: Wolfe D*) (March 2013)

The effectiveness of ABI 101: An interdisciplinary group education series to support individuals with mild traumatic brain injury. London Health Research Day: Driving Innovation Through Collaboration, London, ON

Gutmanis I (March 2013)

Program Evaluation. Psychology Resident Seminar Series, London, ON

Guy S, Mehta S, Lam T, Hitzig S, Loh E (March 2013)

Coping with pain post spinal cord injury: A scoping study. 2013 Pain Management Conference – Looking to the Future: Preparing Patients for Reintegration, Toronto, ON

Guy S, Mehta S, Teasell R, Loh E (March 2013)

Prevalence of pain in Spinal Cord Injury: A Scoping Study. Pain Management Conference: Looking to the Future: Preparing Patients for Reintegration, Toronto, ON

Janzen S, Allen L, Mehta S, Grewal G, Meyer M, Britt E, Teasell R (March 2013)

The use of an audit-feedback loop to address adherence to stroke best practice recommendations for hypertension management. London Health Research Day: Driving Innovation Through Collaboration, London, ON

McIntyre A, Richardson M, Janzen S, Hussein Y, Teasell R (March 2013)

The evolution of stroke rehabilitation knowledge. London Health Research Day: Driving Innovation Through Collaboration, London, ON

Mehta S, Guy S, Teasell R, Loh E (March 2013)

Prevalence of pain in spinal cord injury: A scoping study. London Health Research Day: Driving Innovation Through Collaboration, London, ON

Montero-Odasso M (March 2013)

Do we need a new approach to reduce risk of falling? The interplay between Gait, Falls & Cognition. Department of Physical Medicine & Rehabilitation. Grand Rounds – Parkwood Hospital, London, ON

Richardson M, Meyer M, Teasell R (March 2013)

The effect of thrombolysis on progress through inpatient rehabilitation after stroke: A cost comparison. London Health Research Day: Driving Innovation Through Collaboration, London, ON

Teasell R (March 2013)

Stroke rehabilitation in the community. Saw Swee Hock School of Public Health, University of Singapore, Singapore

Teasell R (March 2013)

The future of stroke rehabilitation. Opening Symposium for the Bundag Clinical Neuroscience Institute, Seoul National University Bundag Hospital, Seoul, South Korea

Teasell R (March 2013)

Concepts in stroke rehabilitation. Seoul National University Bundag Hospital Visiting Professor, Seoul, South Korea

PUBLICATIONS. . .

Abstracts:

Lewis R, Noonan V, Zhong G,...**Wolfe D**, et al

What will traumatic spinal cord injury care look like in 20 years in Canada? Resource planning by forecasting. 13th Annual Scientific Conference of the Canadian Spine Society. Mont Tremblant, QC Feb 27-Mar 2 2013. 3.1.32

Meyer M, O'Callaghan C, Kelloway L, Hall R, Li S, Fang J, Bayley M, Reeves M, **Teasell R**

The impact of post-stroke rehabilitation on 2-year healthcare costs in Ontario, Canada: Can rehabilitation save us money? *Stroke* 2013; 44:A7

Noonan V, Santos A, Lewis R,...**Wolfe D**, et al

Implementing the 'Ideal Model of Care' for patients who sustain an acute traumatic spinal cord injury: What could we expect? 13th Annual Scientific Conference of the Canadian Spine Society. Mont Tremblant, QC. Feb 27-Mar 2 2013. 3.2.34

Peer-Reviewed Articles:

Annweiler C, Beauchet O, Bartha R, **Wells J, Borrie M**, Hachinski V, **Montero-Odasso M**

Motor cortex and gait in mild cognitive impairment: A magnetic resonance spectroscopy and volumetric imaging study. *Brain* 2013 Mar;136(Pt 3):859-71

Annweiler C, **Montero-Odasso M**, Hachinski V, Seshadri S, et al

Vitamin D concentration and lateral cerebral ventricle volume in older adults. *Mol Nutr Food Res* 2013 Feb;57(2): 267-76

Annweiler C, Muir S, Nabeel S, Gopaul K, Beauchet O, **Montero-Odasso M**

Higher serum Vitamin D concentration is associated with better balance in older adults with supra-optimal Vitamin D status. *J Am Geriatr Soc* 2013 Jan;61(1):163-5

Aubut J, Marshall S, Bayley M, **Teasell R**

A comparison of the PEDro and Downs and Black quality assessment tools using the acquired brain injury intervention literature. *Neurorehabilitation* 2013; 32(1):95-102

Hamilton C, Maly M, Clark J, Speechley M, **Petrella R**, Chesworth B

Activity-Modifying Behaviour Mediates the Relationship Between Pain Severity and Activity Limitations Among Adults with Emergent Knee Pain. *Physiotherapy Canada* 2013;65(1)12-19

Landen J, Zhao Q, Cohen S, **Borrie M**, et al

Safety and Pharmacology of a Single Intravenous Dose of Ponezumab in Subjects With Mild-to-Moderate Alzheimer Disease: A Phase I, Randomized, Placebo-Controlled, Double-Blind, Dose-Escalation Study. *Clin Neuropharmacol* 2013 Jan;36(1):14-23

Mehta S, Orenczuk K, McIntyre A, **Wolfe D**, Hsieh J, Short C, Loh E, **Teasell R**

Neuropathic pain post spinal cord injury Part 1: Systematic review of physical and behavioural treatment. *Topics in Spinal Cord Injury Rehabilitation Brain Injury* 2013; 19(1):61-78

Mehta S, Orenczuk K, McIntyre A, Willems G, **Wolfe D**, Hsieh J, Short C, Loh E, **Teasell R**

Neuropathic pain post spinal cord injury Part 2: Systematic review of dorsal root entry zone procedure. *Topics in Spinal Cord Injury Rehabilitation Brain Injury* 2013; 19(1):78-86

McIntyre A, Mehta S, Aubut J, Dijkers M, **Teasell R**

Mortality among older adults after a traumatic brain injury. *Neurorehabilitation* 2013; 27(1):31-40

CALENDAR OF EVENTS. . .



April 2013:

- **2013 Annual Hospice Palliative Care Ontario Conference**

Location: Sheraton Parkway Toronto North Hotel and Convention Centre, Richmond Hill, ON

Dates: April 28 - 30, 2013

For more information see: <http://hpco.ca/conference/>

May 2013:

- **27th Annual Geriatric Medicine Refresher Day**

Location: London Convention Centre, London, ON

Date: May 1, 2013

To Register: <http://www.sjhc.london.on.ca/grd>

For more information contact: Sarah.Woolmore-Goodwin@sjhc.london.on.ca

July 2013:

- **Alzheimer's Association International Conference, AAIC 2013**

Location: Boston, Massachusetts

Dates: July 13-18, 2013

For more information see: <http://www.alz.org/aaic/>

October 2013:

- **Canadian Association on Gerontology Conference: Aging...from Cells to Society**

Location: Westin Nova Scotian, Halifax, Nova Scotia

Dates: October 17-19, 2013

For more information see:

<http://www.cagacg.ca/page.aspx?menu=86&app=345&cat1=873&tp=2&lk=no>