Greetings! I hope you had an enjoyable and restful holiday and feel ready to start 2020!

Parkwood Institute Research had a very busy and monumental fall. At the St. Joseph’s Tribute Dinner in October it was announced that Parkwood Institute received a historic $7.5 million gift from donors, Bill and Lynne Gray, to establish the Gray Centre for Mobility & Activity – a new interdisciplinary clinical, research and teaching centre aimed at promoting people’s capacity to remain mobile throughout their lives, and live in good health. The Gray Centre will be poised to become a national leader in the assessment, treatment and rehabilitation of patients with musculoskeletal and neurological diseases, older and frail adults as well as those living with mental illness for whom mobility is challenged. Congratulations!

PIR hosted a highly successful Open House that had a fun internal for our research teams to meet each other and learn about each other’s exciting work as well as an external event that showcased our work to 100 guests from the public through interactive presentations.

On October 24th, the PIR – Mental Health theme co-hosted with the Lawson Mental Health group the 2019 Mental Health Research and Innovation Day at Parkwood Institute drawing over 200 attendees (a new record!) to hear the internationally renowned keynote speaker, Dr. Aimee Van Wynsberghé speak on the role of artificial intelligence in mental health care as well as learn about the impactful and exciting research being performed locally.

Please stay tuned for the upcoming call for the PIR-SE awards!

I will be Interim Chair for PIR while Dr. Cheryl Forchuk is away completing the last portion of her sabbatical over the winter and spring. Please do not hesitate to connect with me over the coming months on PIR matters.

Thank you and all the best for the New Year,
Dr. Arlene MacDougall
WELCOME TO OUR NEW RESEARCH PERSONNEL!

Dr. Anurag Thatipalli MBBS MD is an International Medical Graduate from India. He graduated from Medical School in the year 2008 and subsequently pursued a three-year residency program in Forensic Medicine & Toxicology from the prestigious Osmania Government Hospital, Hyderabad, India (2009-2012). Soon after, He began a career as an Assistant Professor of Forensic Medicine at Apollo Hospitals, Hyderabad, India, a renowned center for medical education and patient care. (From 2012-2015). Dr. Thatipalli moved to Canada in 2016 and cleared the Medical Council of Canada Licensing exams (LMCC Part1&2). He joined the Geriatric Mood Disorders Lab as a Research Volunteer in September 2019 to assist Dr. A. Vasudev’s Research Team. He wishes to pursue a residency in Psychiatry and sub-specialize into Forensic Psychiatry, to care for individuals with Mental Illness who have come into contact with the criminal justice system.

Jasmine Cakmak is currently a Master’s candidate in neuroscience at the University of Western Ontario under the co-supervision of Dr. Akshya Vasudev and Dr. Lena Palaniyappan. She joined as a member of the Geriatric Mood Disorders Lab at PIR and the Neuroimaging in Mental Illness Group at the University of Western in September 2019, assisting both labs as a part of her graduate work. Specifically, she is interested in the neuroimaging of glutathione in Late-Life Depression at 7-Tesla with Sahaj Samadhi Meditation as intervention. She holds a H.BSc in Biomedical Science from the University of Ottawa.

Emily Pak is a high school student completing her co-op requirements in the PEL (Partners in Experiential Learning) program. She joined the Geriatric Mood Disorders Lab at PIR as a student Research Assistant in September 2019. Emily assists Dr. Akshya and Kamini Vasudev with the Alternative Treatments to Help Late Life Depression study and Alternative Treatments to Help Post Traumatic Stress Disorder study. Her main roles are data entry and data verification.
Ryan Gulyaprak is in the 4th year of his second degree and is completing an Honours Specialization in Psychology. It is Ryan’s 6th year of undergraduate studies at King’s, as he has previously completed a double major in Criminology and Psychology. Ryan is working on the Alternative Treatments to Help Late Life Depression study with Dr. Imants Baruss and Dr. Akshya Vasudev. Ryan is using baseline data and structural equation modelling statistics to find the strength and direction of the relationships between depression, anxiety, fear of falling and psychological well-being in the patient population. Many possible clinical implications could arise from the results of this study.

Janani Sathiaselan is a Volunteer Student Research Assistant in the Geriatric Mood Disorders Lab at The London Health Sciences Centre in London, ON, Canada. She joined the team of Dr. Akshya Vasudev and Dr. Kamini Vasudev in September 2019, and assists in studies involving alternative treatments including meditation and yoga for Late Life Depression and PTSD. She is currently completing her HSBsc at Western University.

Emily is a new Graduate Research Assistant with the Mental Health Nursing Research Alliance at Lawson Health Research. In 2014, Emily graduated from the University of Windsor with a Bachelor of Science in Nursing. Since then, she has worked as a Registered Nurse in Long Term Care, Nephrology and Cardiology. In 2017, Emily began working towards her Masters of Science in Nursing with an anticipated completion in 2021. Emily has a passion for Nursing and would love to pursue her PhD in nursing in the future. In her “spare” time, Emily likes to read murder mysteries and spend time with her friends, family and her dog, Ryder!
Luciana completed her executive MBA in 2015 and holds a post-baccalaureate diploma in Management, both from Athabasca University, Faculty of Business. She completed her Bachelor of Administrative Studies degree at York University in 2003. Luciana has many years of senior administrative and project management experience in Canada and the Middle East, and has worked in varied environments including teaching and community hospitals, government organizations and research settings.

Lewis Mahon is from London and attended Acadia University. He has previous research experience with the Diabetes Clinical Research Trials Unit at St. Joseph’s Hospital, and was recently the Assistant Director – Programs at YMCA Camp Queen Elizabeth, running the Outdoor Education program. He enjoys camping and reading.

Nellie Kamkar, H.B.A., M.Sc., is a Research Coordinator and Project Developer at the Gait and Brain lab, primarily managing study logistics for the upcoming SYNERGIC 2 trial which will evaluate the benefits of a multitude of interventions on delaying dementia in individuals with Mild Cognitive Impairment (MCI). Nellie obtained an Honours Specialization in Developmental Cognitive Neuroscience in 2015, as well as a Master of Science degree in 2017—both from Western University. Nellie has previously lead clinical trials at the University of Toronto, the Hospital for Sick Children, and Toronto General Hospital and has extensive experience with cognitive testing and neurological assessments including the use of functional Magnetic Resonance Imaging (fMRI). Nellie has a vested interest in understanding cognitive impairment and its concomitant neurological presentation across development.
Nattasha is a Medical Secretary who began her career in a Physiotherapy and Rehabilitation Centre in 2008. She became a part of the St. Joseph’s family in 2012, at which time she specialized in staff scheduling and Payroll. From there, she moved on to expand her skills in an outpatient department, where she assisted in the establishment of a Heart Failure Clinic in 2014. Nattasha joins the Gait & Brain lab as direct administrative support to Dr. Montero-Odasso. She looks forward to growing her experience and knowledge as she assists in his clinical and research work and provides assistance to his patients and fellow lab colleagues.

Julie Watson completed her Bachelor of Arts in Psychology from Western University. Her background is in advocating for and developing community partnerships among various under-serviced populations. She is a Peer Support Coordinator for Spinal Cord Injury Ontario, and has been with the organization since 2016. Julie is a Research Assistant in the RehabPsych Lab where she will be providing support to persons with neurological conditions accessing online mental health in order to help promote patient’s ability to self-manage their symptoms and improve overall well-being and quality of life.

Mitesh Chaudhary is completing the Computer Programmer Analyst Program at Fanshawe College. He is currently working at the RehabPsych Lab with Dr. Swati Mehta and Lawson ITS to develop a web platform to deliver online mental health services for persons with neurological health conditions including spinal cord injury, brain injury, and stroke. He enjoys spending his free time doing photography and learning about artificial intelligence.

Sara was born and raised in London, Ontario. She completed her undergraduate degree in Health Sciences and Biology at Western University. Before joining the MHNRA team at Lawson Research, Sara previously conducted research on health policy, youth mental health and patient reported outcome measures (PROMS). As an avid volunteer, she has spent time supporting local initiatives aimed at reducing poverty and promoting mental wellness. Sara enjoys working with various populations and uses a holistic framework to promote resilience, agency and equitable access to care. During her spare time, Sara enjoys cooking, travelling and bingeing full seasons on Netflix in a single weekend. She is excited to join the MHNRA team this year!
Ivie Evbuomwan joined Research to Practice (R2P) Team in September as a new Research Coordinator and Implementation Manager for the SCI Quality Care Consortium which focuses on implementing best practices across SCI rehabilitation programs in Ontario. Her work includes improving health care for people living with spinal cord injury by facilitating the collaborative efforts of researchers, administrators, individuals with lived experience and clinicians through knowledge mobilization, evidence-based research and implementation science.

A VERY SPECIAL WELCOME TO YOU!

CONGRATULATIONS ON THESE NOTABLE ACCOMPLISHMENTS...

School of Physical Therapy 2019 Clinical Instructor Award

At the October 24th 2019 Master of Physical Therapy Program Graduate Awards Ceremony at Western University (School of Physical Therapy) Stephanie Cornell was awarded the 2019 Clinical Instructor Award by the School of Physical Therapy, nominated by her most recent Physical Therapy student Julian Quaglia. This award is presented annually to a Clinical Instructor in recognition of his/her excellence during the clinical experience placements of Physical Therapy students in the MPT Program. Dr. Samantha Doralp, Academic Coordinator of Clinical Education presented Stephanie her award. A portion of her nomination included “Again, the emphasis must be placed on how wonderfully she transcended the student - preceptor dichotomy; throughout my whole placement I felt as though I was treated as a colleague, someone she was more than willing to exchange ideas and thoughts with. She fostered a level of confidence within that can't be understated.”
Dr. Montero-Odasso named one of the top 10 most influential Hispanic Canadians of 2019! Please see www.hispanicbusiness.ca/main for details.

Dr. Montero-Odasso was greeted at the Karolinska Institute dinner as an invited opponent and Karolinska Institute reviewer. (right) this glass was given to him as a token of appreciation. It is the same one given to Nobel Laureates at their banquet.

Dr. Pieruccini-Faria,
Post-Doctoral Associate in the Gait and Brain Lab

Peer Reviewed Published Work Outside of the Lab

Dr. Negahban,
Visiting Scientist in the Gait and Brain Lab

Peer Reviewed Published Work Outside of the Lab
Nick Bray
Doctoral Candidate in the Gait and Brain Lab

Recent Award Recipient
Ontario Graduate Scholarship (OGS), 2019.
Value of $15,000.

Erica Figgins,
Master of Science Student in the Gait and Brain Lab

Recent Award Recipient
Ontario Graduate Scholarship (OGS), 2019.
Value of $15,000.

Stephanie Cullen,
Master of Science Student in the Gait and Brain Lab

Recent Award Recipient
Canadian Institute of Health Research (CIHR) Canadian Graduate Scholarship Master’s (CGS-M), 2019. Value of $17,500.
Dr. Robert Teasell was invited to conduct the Glen E. Gresham Visiting Professorship and Lecture in Rehabilitation Science at the University of Buffalo, SUNY, Buffalo New York on October 24-25, 2019. Dr. Teasell spoke to a large audience of rehabilitation professionals and students on “Stroke Rehabilitation at a Crossroads: Where We Have Been and Where We Are Going” as well as meeting with a number of faculty and graduate students.

Robert Teasell, MD, FRCPC
Department of Physical Medicine and Rehabilitation
Western University

Thursday, October 24, 2019
4:30 p.m. reception (for refreshments)
Talk begins promptly at 5 p.m.
150 Farber Hall (Butler Auditorium)
UB South Campus

Department of Rehabilitation Science
AMOSO Innovation Showcase Provincial Award, November 15

“Continuing Stroke Recovery through Rehabilitation in the Community” was chosen to be a poster and presentation at the AMOSO Innovation Showcase in Toronto. It was selected as the winner of the Innovation Fund Award for best poster in the Mental Health, Children and Community Care group (one of four groups). The award was presented by the Honourable Christine Elliott, Ontario Minister of Health in Toronto on November 14, 2019. It was specifically centred out as an example of research into an innovative approach to health care.

The poster title was Continuing Stroke Recovery through Rehabilitation in the Community and the authors were Shannon Janzen, Magdalena Mirkowski, Amanda McIntyre, Jerome Iruthayarajah, Ricardo Viana and Robert Teasell.

Visiting Professorship and Review of Singapore Stroke Rehabilitation System, Singapore Ministry of Health November 18-22

Dr. Robert Teasell was invited by the Singapore Ministry of Health as a Health Manpower Development Plan Visiting Expert in Integrating Stroke Rehabilitation Across the Continuum of Care – From Hospital to the Community. It was a full 5 day review and included 3 lectures and 2 teaching sessions with the rehabilitation residents as well as meeting and conducting a number of question and answer sessions with different hospitals’ administration and staff. Dr. Teasell at the end of the review produced a report on the state of stroke rehabilitation in Singapore for the Ministry of Health.

Tan Tock Seng Hospital (TTSH) November 18 and 20, 2019

November 18, 2019 Dr. Teasell conducted a site visit to the Tan Tock Seng Hospital (TTSH) Rehab Centre @ AMK followed by a site visit to the acute stroke unit at TTSH to review rehabilitation in the hyper acute phase. TTSH has almost 1,700 beds at one site. Dr. Teasell lectured on “Stroke rehabilitation care across the continuum of care - the Canadian experience”. November 20, 2019 he later met with TTSH Senior Administration about their upcoming Integrated Care Hub as well as meeting with their Early Supported Discharge Team.
Dr. Teasell Integrating evidence-based medicine in stroke rehabilitation care: Stroke rehabilitation at a crossroads, where do we go next, Tan Tock Seng Hospital, National Healthcare Group, Singapore, Singapore, Nov 21, 2019.
November 21, 2019 Dr. Teasell visited Yishun Community Hospital, which is also part of the National University Health System and spent much of the time in a Q&A session with administration and staff.

Changi General Hospital Rehabilitation Medicine and St. Andrew’s Community Hospital, November 22, 2019

November 22, 2019 Dr. Teasell visited Changi General Hospital Rehabilitation Medicine and St. Andrew’s Community Hospital (adjacent with largely rehab beds). Dr. Teasell again lectured on “Stroke rehabilitation care across the continuum of care - the Canadian experience”.
A GOOD STORY...

THIS IS A NEW SECTION TO HIGHLIGHT ABOUT INTEGRATING RESEARCH INTO PRACTICE – A KEY FOCUS IN THE NEW PIR STRATEGIC PLAN.

**PRIME: Parkwood’s Program for Rehabilitation Innovations in Mobility Enhancement**

The PRIME initiative has just wrapped up its first phase – a perfect time to summarize accomplishments to date and share next steps. PRIME is a flagship project of the R2P team and is a great example of what can happen when research, clinical and educational activities are integrated. This project involves therapists, researchers, and hospital administrators working together with persons with lived experience and students to develop enhancements to activity-based therapies (e.g., optimizing therapeutic intensity) in persons with acquired brain and spinal cord injury.

The ultimate objective of PRIME is to deliver the best possible therapy to the right person at the right time to achieve the best possible outcome.
What’s Involved with PRIME:

Although PRIME is multi-faceted, the main activities to date have involved a very participatory approach with a small core team (Stephanie Cornell, Melissa Fielding, Stephanie Marrocco, Patrick Stapleton, Dalton Wolfe) as well as a larger community of practice involving mostly physical and occupational therapists from the acquired brain and spinal cord injury rehabilitation programs and administrators, patients and students. This group has developed and implemented a more standardized and systematic process of assessing standing and walking abilities as well as new models of care to enable inclusion of more advanced therapies such as robotic exoskeletons, robotic treadmill-assisted walking (Lokomat) and FES-assisted walking and cycling within daily therapy. Along with this, the team has developed methods for identifying and collecting information about the specific therapies that are conducted on each patient. This information is collected in a practice-based research trial (currently n=93) that will continue to amass data and form the basis of analytic models being designed to identify the most effective mix of therapies for given types of patients. Dr. Dan Lizotte (Dep’ts of Computer Science and Epidemiology & Biostatistics) and MSc student Nathan Phelps are currently exploring methods to test the viability of this approach.

Stephanie Cornell (SCI OP PT) (pictured in Figure 1), Stephanie Marrocco (PHD Student), Dr. Deena Lala (NTR PT) and Dr. Dalton Wolfe (Scientist) recently presented this work across 3 presentations and posters at the National SCI Meeting in October. This included data from a series of 30 patients to illustrate different ways to characterize walking outcomes in SCI patients from inpatient admission to discharge (See Figure 2) and also a model to characterize the different types of practices that are administered during a therapy stay (See Figure 3).

Figure 1: Stephanie Cornell of R2P and the Parkwood SCI rehabilitation OP team presenting at the

Figure 2: Sankey Diagram illustrating a way to characterize improvements in walking function (as indicated by an assessment called the Standing and Walking Assessment Tool). As patient progress from admission (left side) to discharge (right side) any improvements are represented by moving to the bottom of the chart. Most clinically significant is when patients improve by at least 1 stage grouping (e.g., from 1A, B or C to 2A, B or C). In this group of 30 patients, 26 showed at least some improvement.
Innovating Practice:
Unlike a traditional research approach, a key method within PRIME involves iteratively improving practice on the ground through the application of implementation science methods as this ambitious initiative evolves. As Stephanie noted in her presentation, this approach to integrated KT means the therapists are constantly reflecting on their practice and striving for constant improvement. Our whole team believes we are delivering better care with more thought to intensity and constantly improving outcomes using this approach. This spirit of innovation has led to generation of different models of care delivery that are currently being explored. Notably, by involving patients, students, volunteers and staff in thinking about more efficient ways to deliver therapy we have developed a new concept (termed Modules to Enhance Care or MECs) in which modules involving advanced practice bundles are scheduled at different times in group or individual formats with the capability to be “added on” to the traditional 1-1 therapy delivery model. Students have been especially helpful in enabling the MEC concept. (More info to come about these MECs in a future issue)

Next Steps:
• Implementation of the analytic models currently in development which will enable an easier way to document and analyze iterative improvements.
• Embedding this approach within an electronic decision support system that will also serve clinical functions such as report generation.
• Testing and further validation of this system – likely to involve introducing the PRIME system to other centres.
• Continued development and testing of the MEC model of care approach.

GRANTS & RESEARCH FUNDING

Principle Investigators: Akshya Vasudev and Cindy M Hutnik
Study Title: Health Education versus Meditation in Age Related Vision Loss patients and their caregivers, a pilot randomized controlled trial
Funding Agency: AMOSO innovation
Year: 2020-2021
Amount: $140,000
SEPTEMBER

**Co-Author**, The Effects of Mindfulness-Based Cognitive Based Therapy (MBCT) on Cognition in Late-Life Depression & Anxiety: A Pilot RCT, National Conference on Frailty: Innovation and Collaboration for Impact, Presenters: Joyce Wu, Michael Lifshitz, Marouane Nassim, Elena Dikaios, Susana G. Torres-Platas, Joseph Therriault, Neeti Sasi, Maria Di Tomasso, Vasavan Nair, Sebastien Nguyen, Akshya Vasudev, Pedro Rosa-Neto, Mallar Chakravarty, Soham Rej, 2019 Sep 26, Toronto, Ontario, Canada, Original Research Presentation, Hours: 2, Attendees: 350

**Supervisor**, Akshya Vasudev, A feasibility (pilot) study of an innovative non-pharmacological intervention program in at risk youth. Department of psychiatry, western university, division of child and adolescent psychiatry, Presenters: Emily Ionson and Christine Watt, 2019 Sep 26, London, Ontario, Canada, Community Outreach Activity, Attendees: 8

**Presenter**, Alternative Treatments to Help Late Life Depression Study, Western University Retirement Research Association, Presenters: Akshya Vasudev, Emily Ionson and Christine Watt, 2019 Sep 23, London, Ontario, Canada, Community Outreach Activity, Hours: 1, Attendees: 70


OCTOBER

**Supervisor**, Presented at Youth Empowerment Program held on Saturdays at the Northwest London Resource Centre regarding ongoing study on Youth Empowerment Seminar (YES!) study, Northwest London Resource Centre, Presenters: Christine Watt, Anurag Titthipali, Akshya Vasudev, 2019 Oct 20, London, Ontario, Canada, Community Outreach Activity, Hours: 1, Attendees: 18


**Montero-Odasso, M.** Multidomain interventions to prevent dementia. The synergic trial (Oct 16th, 2019). Oral presentation at *The Rechnitzer-Cunningham Annual Lecture Series,* London, ON.


**NOVEMBER**

**Teasell R.** Stroke rehabilitation across the continuum – the Canadian experience. Tan Tock Seng Hospital, National Healthcare Group, Singapore, Nov 18, 2019.


**Teasell R.** Integrating evidence-based medicine in stroke rehabilitation care: Stroke rehabilitation at a crossroads, where do we go next, Tan Tock Seng Hospital, National Healthcare Group, Singapore, Singapore, Nov 21, 2019.


**PUBLICATIONS**


Montero-Odasso. (2019). Gait disorders in Alzheimer’s Disease and other dementias: There is something in the way you walk. Journal of Alzheimer’s Disease, 71(s1), S1.


**MEDIA**


Teran Neiman engaging with a study participant at the Gait and Brain lab as media coverage by CTV News covers. For full video please visit: https://london.ctvnews.ca/video?clipId=1840132

'Brainstorm': Western University video series sheds light on concussions
Featuring: Laura Graham
Shared on Twitter, YouTube, Facebook, and Western main page, School of Physical Therapy webpage, and Faculty of Health Sciences home page

EVENTS & CONFERENCES

Dr. Negahban,
Visiting Scientist in the Gait and Brain Lab

Peer Reviewed Published Work Outside of the Lab
On Tuesday October 13th, 2019, the Gait and Brain Lab held its 13th successful seminar and welcomed guest speaker Dr. Luigi Ferrucci, internationally recognized geriatrician and epidemiologist from Baltimore, Maryland. Dr. Ferrucci gave an engaging lecture on cognitive decline and physical function, which was followed by a lively discussion.

Farewell Party
On Friday November 22nd, 2019, the Gait and Brain Lab held a goodbye party for visiting scholar Dr. Negahban. The event started with a talk by Dr. Negahban in which he presented the results of his research within the lab and was followed by an engaging discussion by all team members.
3rd Annual Parkwood Institute Research Open House

On Thursday November 28th, 2019, the Gait and Brain Lab participated in the 3rd Annual Parkwood Institute Research Open House through Lawson Health Research Institute. The event included interactive tours of the research facility as well as games that introduce our research endeavors and engage both researchers and general community alike.

(left to right) Joel Mahon, Stephanie Cullen, and Nellie Kamkar engaging with an interested member of the general community.

Cheryl Forchuk speaks to the internal audience and hands out special prizes for the winning teams!

PIR Teams visit each other’s displays to learn about other research, complete a game or task and get to know each other better in the meantime!
Save the date for the next installment of our annual seminar series: The 14th Annual Gait and Brain Seminar will be hosted at the Mental Health Auditorium (Parkwood Institute, London ON). Date TBD. Details will be provided on our lab website https://gaitandbrain.com/

Teams are made up of participants from different labs to encourage collaboration.

Each display was decorated with festive colours and decorations to ring in the holiday season.

Save the date for the next installment of our annual seminar series: The 14th Annual Gait and Brain Seminar will be hosted at the Mental Health Auditorium (Parkwood Institute, London ON). Date TBD. Details will be provided on our lab website https://gaitandbrain.com/
Month: May  
Event name: Wings for Life World Run  
Location: Springbank Gardens Pavilion (Starting Point)  
Date: May 3, 2020  

For more information:  
Website: https://www.wingsforlifeworldrun.com/en/index.html  
Local Contact: Marquise Bonn (marquise.bonn@sjhc.london.on.ca, ext 42796)