



# ANNUAL REPORT

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2019/2020

REHAB RESEARCH PROGRAM

# Message from the RRP's Director

The 2019-2020 fiscal year saw many new activities launched and achievements reached, but ended with the closing of research activities due to COVID-19. We anticipate a difficult 2020-2021 year due to COVID-19, but celebrate our achievements from the last year. The RRP had several exceptional students complete their graduate degrees over the past year and we celebrate their achievements in our report. Our trainees have the opportunity to engage in numerous activities that support their development in learning the intricacies of research. The Productivity Club is a monthly activity where a trainee presents a paper about to be submitted to a journal with a roundtable format, which facilitates faculty and trainees to provide critical input to improve the paper. These sessions help to pre-empt the concerns that potential reviewers might have and we all learn from these discussions. This has resulted in virtually all of the Productivity Club reviewed papers going on to be successfully published. The RRP Monthly Lab meetings have generated important discussions for future researchers with topics such as integrating sex and gender into one's research and the increasing movement of Open Science. Trainees have the opportunity to present at our annual local GF Strong Research Day before venturing on to national and international conferences. On a lighter note, the RRP Work and Environment Committee (WEC) strives to provide a supportive environment and social opportunities. The Healthy Workplace Initiatives Program (HWIP) is an annual fund available to UBC departments and units to support grassroots activities that promote wellbeing in the workplace. The RRP WEC used these funds to implement a 13-week yoga program that was well attended by our lab members, promoting health and a social experience. Importantly, our trainees build enduring collegial relationships in the RRP; this year saw former RRP trainees Dr. Ada Tang, now Associate Professor at McMaster University and Dr. Brodie Sakakibara, now Assistant Professor at the Kelowna Campus of UBC collaborate in launching TRAIL, a telerehabilitation research program supporting people living with stroke at multiple sites across Canada.

A portrait of Janice Eng, PhD, a woman with dark hair, wearing a teal top, looking slightly to the right.

Janice Eng, PhD  
Professor and Canada Research Chair, UBC

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# RRP 2019



## 65 MEMBERS

**10** Primary Investigators

**02** Associate Members

**5** Post-docs

**8** PhD students

**5** Master's students

**07** Coordinators

**11** Research assistants

**01** Research associate

**16** Undergraduate student research assistants

### PI GRANT FUNDING:

# \$3,171,356

CIHR: \$825,886

NSERC: \$435,542

SHHRC: \$146,818

OTHER: \$1,763,110



## 69 PEER REVIEWED PUBLICATIONS



Dr. Noah Silverberg completed his clinical position at the GF Strong Rehab Centre and made a leap into full-time academia. He starts as an Assistant Professor in the Department of Psychology at UBC. He will continue to be an active researcher with the RRP on concussion and brain injury. Congratulations Dr. Silverberg!



Dr. Bill Miller commenced as the Chair of the UBC Graduate Program in Rehabilitation Sciences Program. This is the UBC program in which most of the RRP trainees formally undertake their graduate degrees. Kudos to Dr. Miller for taking on such an important role in the continuing development and operation of the Rehabilitation Sciences Program.



Dr. Janice Eng was appointed an Honorary Doctorate in Rehabilitation Sciences from the University of Laval. This award recognized Dr. Eng for her achievements in moving the field of neurological rehabilitation forward, and improving the lives of people living with stroke and spinal cord injury.

## FACULTY NEWS

# TRAINEE DEVELOPMENT AND SUCCESS



Congrats to Riley Louie and Shannon Lim, both RRP PhD candidates who made it through three rounds to the finals of the highly competitive UBC Three Minute Thesis Competition. Participants have just three minutes to explain the breadth and significance of their research project to a non-specialist audience. The 3MT is held in over 350 universities across 59 countries worldwide. Riley won first place at the UBC Three Minute Thesis competition with his presentation “A Little ExStRA” and a spot for the Western Canadian finals. This presentation described his doctoral work involving a clinical trial in BC, Alberta and Ontario to improving walking after stroke utilizing a robotic exoskeleton. Shannon won People’s Choice for her presentation “Brain activation during simple and complex walking post-stroke”. Her presentation outlined her doctoral work which uses near infrared spectroscopy to better understand brain functioning in people with stroke while they are walking. A great show of effective presentation and communication skills by our trainees!

## Co-pilot and onwards for Dr. Emma Smith.

Congratulations to Emma Smith on defending her PhD “Powered wheelchair skills training for older adults with cognitive impairment”. Dr. Smith, supervised by Dr. Miller in developing Co-Pilot – a teleoperated project that provided individuals with profound disability an opportunity to learn to use their power wheelchair enhanced by a wireless hand control device to ensure safety. Dr. Smith is currently a post-doctoral fellow at the Assisting Living and Learning Institute at Maynooth University in Ireland.

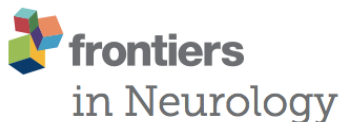
## Master’s students making moves!

Dr. Mortenson had two Master’s students graduate: Sharon Jang and Gurkaran Singh. Sharon did a study comparing the measurement properties of a skills test for scooter users in different settings (i.e., the laboratory versus the community). Gurkaran explored the eHealth literacy levels among people with spinal cord injury. Gurkaran Singh was interviewed and featured in the article “App helps workers with spinal cord injuries” in Work-Safe Magazine, p. 17-18. Available for download at: <https://www.worksafebc.com/en/resources/newsletters/worksafe-magazine/worksafe-magazine-sept-oct-2019/work-science?lang=en>

# GUIDELINE LEADERSHIP

RRP faculty continue to be leaders in moving research to practice through the development of clinical guidelines. Dr. Patricia Mills, whose own research focuses on the neurological symptom of spasticity served on a Canadian Spasticity COVID-19 Task Force which developed practice guidelines for the management of spasticity during the COVID-19 pandemic. This was rapidly reviewed and published in the Canadian Journal of Neurological Sciences. Dr. Janice Eng is a co-author of the recently released Paralyzed Veterans of American Neurogenic Bowel Management in Spinal Cord Injury Clinical Practice Guidelines. As the lead of the Spinal Cord Injury Research Evidence (SCIRE) Project, Dr. Eng provided methodological support to the clinical team, and the SCIRE team extracted the data for this guideline.

## PEER-REVIEWED JOURNAL PUBLICATIONS



In 2019, the RRP published a total of 69 peer-reviewed publications. We highlight one exemplary paper. Dr. Silverberg's paper ["Advice to Rest for More Than 2 Days After Mild Traumatic Brain Injury Is Associated With Delayed Return to Productivity: A Case-Control Study"](#) published in Frontiers in Neurology. This study supports growing evidence that prolonged rest after mild traumatic brain injury is generally unhelpful, as patients told to rest until they were asymptomatic were less likely to have resumed work/school at 1-2 months post-injury.



## Principal Investigators

**Dr. Janice Eng** | PhD, BSc(PT/OT), Professor and Canada Research Chair, Physical Therapy, UBC. | Focus: neurological rehabilitation, clinical trials and implementation science.

**Dr. Bill Miller** | PhD, OT, Professor, Occupational Science and Occupational Therapy, UBC. | Focus: mobility disability and participation of older adults; wheeled mobility devices, measurement tools and assistive technology.

**Dr. Patricia Mills** | MD FRCPC, Clinical Associate Professor, Physical Medicine and Rehabilitation, UBC. | Focus: management of spasticity in spinal cord injuries, multiple sclerosis, stroke, and brain injury.

**Dr. Ben Mortenson\*** | PhD, Associate Professor and CIHR New Investigator, Occupational Science and Occupational Therapy, UBC | Focus: assistive technology, social participation, caregiving and outcome measurement.

**Dr. Courtney Pollock** | PhD, PT, Assistant Professor, Physical Therapy, UBC. | Focus: mechanisms and treatments of walking and balance from neurological changes associated with aging, disease and injury.

**Dr. Julia Schmidt** | PhD, OT, Assistant Professor, Occupational Science and Occupational Therapy, UBC. | Focus: Traumatic brain injury, cognition, activities of daily living, quality of life.

**Dr. Noah Silverberg** | PhD, R Psych, ABPP, Clinical Associate Professor and Michael Smith Health Professional Investigator, Physical Medicine and Rehabilitation, UBC; Acquired Brain Injury Program, GF Strong Rehab Centre | Focus: prognosis and treatment of mild traumatic brain injury.

**Dr. Andrea Townson** | MD FRCPC, Clinical Associate Professor, Physical Medicine and Rehabilitation, UBC. | Focus: spinal cord injury rehabilitation, health provider education and competency.

**Dr. Jennifer Yao** | MD FRCPC, Clinical Associate Professor, Physical Medicine and Rehabilitation, UBC. | Focus: stroke in young adults; brain injury and cancer rehabilitation.

**Dr. Carlo Menon** | PhD, Professor and Canada Research Chair, Engineering Science, SFU. | Focus: robotics, mechatronics, smart materials and structures, artificial muscles.

*\*50-50 time between RRP and ICORD*

## Associate members

**Dr. Brodie Sakakibara** | PhD, OT, Assistant Professor and Michael Smith Scholar, Occupational Science and Occupational Therapy and Southern Medical Program, UBC | Focus: chronic disease self-management; secondary prevention of stroke and cardiovascular disease.

**Dr. Kathleen Martin Ginis** | B.Sc., M.A., Ph.D., O.M.C., Professor and director of Faculty of Medicine Centre for Chronic Disease Prevention and Management, UBC. | Focus: physical activity participation in community-dwelling people living with spinal cord injury; exercise psychology and behavioural science to improve physical activity participation.





Thank you for reading our 2019/2020 Annual Report.

Prepared by: Janice Eng & Tasha Klotz

For additional copies of this report or any other RRP publications, please call 604-714-4108.

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