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Post-doctoral fellow

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PT & MRSc Graduate

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PHYSICAL THERAPY

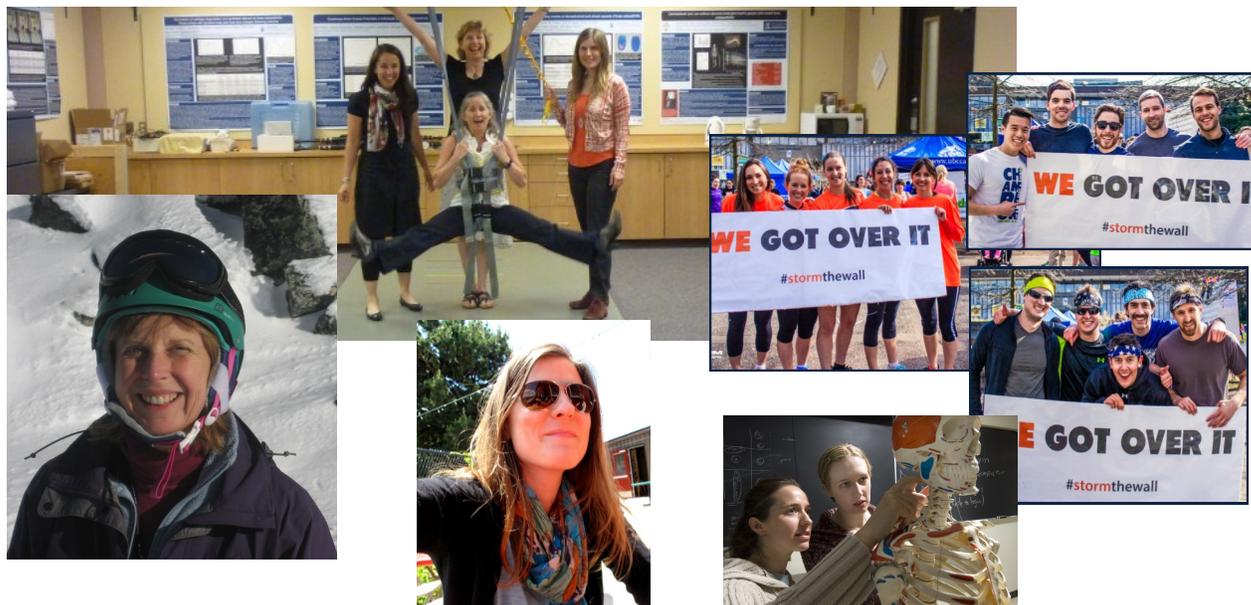
MOVEMENT AND FUNCTION FOR LIFE

VOL 15 | APRIL 2014

THE NEWSLETTER FOR THE DEPARTMENT OF PHYSICAL THERAPY



Master of Physical Therapy second year students at Ortho club learning new taping techniques



UBC PHYSICAL THERAPY

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FACULTY OF MEDICINE

UBC PHYSICAL THERAPY

VOL. 15| APRIL 2014

A publication of the University of British Columbia's Department of Physical Therapy in the Faculty of Medicine, providing news and information for and about faculty members, students, staff, alumni and friends.

Letters and suggestions are welcome, or to change your contact information with the Department contact Brenda Wessel at:

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MESSAGE FROM THE HEAD



Dr. S. Jayne Garland, PhD, PT

Professor and Head, UBC Department of Physical Therapy

I am delighted to have been asked to be “profiled” in this edition of the newsletter and hope my enthusiasm for research and service activities will show through. I am also happy that two trainees whom I supervise have made contributions to this issue.

I have had the privilege of serving as Department Head of UBC for the last five years and continue to be excited about the initiatives within the Department going forward. While the Department is under considerable financial strain, I am optimistic about all we can achieve with the exceptional faculty, staff, students and partners we currently have with us. We recently formed a revenue generating working group and have come up with several interesting ideas to explore.

In our MPT program we have made recent changes to some of our courses; Research I and II has been combined which will allow course content to become integrated, streamlined and manageable. While combining the research courses made sense, we are also proposing to split the Exercise and Movement course into two separate courses which will allow for easier administration, scheduling and evaluation. We hope to have our first student in the combined MPT/PhD degree start in September.

We continue to expand and improve our clinical education experiences in the MPT program. In January of 2015, Sue Murphy and Alison Greig will be meeting with key stakeholders to inform them about the program and will seek their input into future directions for academic and clinical education. Sue continues to hold preceptor workshops at sites where there is interest in providing clinical experiences to our students. She along with her Northern counterpart, Robin Roots, and Alison Greig will be presenting some of their great innovations and research at the Canadian Conference of Medical Education in Ottawa which unfortunately coincides with the Physiotherapy Practice Forum this year.

Overseeing improvements in our programs is just one of the ‘perks’ of being a Department Head. I also look forward to meeting the Class of 1983 during their upcoming reunion on May 23. They will be touring the facilities of the Department as well as those of the Department of Occupational Sciences and Occupational Therapy; their class received a joint PT/OT degree. This event is being held in conjunction with UBC’s Alumni Weekend and I think they will be impressed with how far the Department has come since they attended classes here.

GREETINGS

from the
Department Head



News from the MPT1 Class

Michael Lam, MPT 1 Class Representative

FOCUS ON:
Students

Another milestone reached. Another mountain climbed. Another ocean crossed. Another semester completed. For what felt like an eternity, the MPT1's have reached the end of the most grueling part of the program (the first 8 months) and are now gearing up to head onto their clinical placements. Although the past 8 months may have been intense, demanding, and tested our inner strength at times, as a group, as a class, as a family we worked through it all. Heck, we even had time to organize a few events here and there along the way.



Ladies MPT 1 Storm the Wall:
[L-R] Nicole Warren, Sophia Chadwick, Jenny Mildon, Ashley Fradette, and Jenny Waring

A fundraiser was held at Grandview lanes where many bowled to support Jeff Scott's not-for-profit foundation, Live It! Love it! which helps to empower those with disabilities to reach their goals and dreams. Three teams from the MPT1 Cohort also tested the 12 foot wall at this year's annual Storm the Wall! The course and obstacles were difficult, but most difficult was juggling classes in order to take part in this event. Right now all we can do is enjoy this precious week off to reset our minds, recondition our bodies, and refuel our minds for the week back.



Men's MPT1 Storm the Wall [L-R]: Michael Lam, Jonathon Carkner, Matt Baumeister, Jeremy Edwards, and Christian Morin.



Men's MPT1 Storm the Wall [L-R]: Matthew Beda, Scott Richards, Ben Macdonald, Giancarlo Brancati, and Mitchell Bourne

News from the MPT2 Class

Christian Kubas , MPT2 Class Representative

The MPT 2 class is back in the hallways of Friedman for their last full semester of classes. Rejuvenated from back to back placements spanning across November to early February, the MPT 2's are in class taking in more theory and practical skills with a better perspective. As for extra-curricular activities, our down time has consisted of fundraisers, weekend practical courses (student discount of course!), and the all important research project.



MPT 2's team "Breasties" at the Run for the Cure



Run for Rural Medicine with MPT 2 students [L-R]: Kaley Strachan, Larissa Vassos, Emilie Whittemore, and Silvana Echeverri)

Both classes put a team together known as "Physio Phresh" for the Relay for Life. They raised over \$600 dollars for the Canadian Cancer Society through a bake sale and an indoor relay that ran from 7pm to 7am. The MPT 2's also put in a team called the "MPT Breasties" for the Run for the Cure in support of breast cancer research.

As the real world comes knocking at our doors, many of the MPT 2's are seeking ways to beef up their resumes with extra courses such as acupuncture and Mulligan concept. In addition to those courses the "Ortho club", which is a student organized group that runs after classes, has been a success among the MPT 2 class. This club welcomes physiotherapists from the community to shed light on orthopedic topics of interest. A few of the topics have been on detailed pelvis assessments, ACL protection strategies, vestibular rehab, taping and myofascial techniques.

As we prepare for another round of placements beginning in June, a large portion of students have opted to write the National exam earlier in July instead of September. This ambitious group of students will be pressed for time as they study for finals in late May and prepare for their 5th placement. Several students are getting a taste of physiotherapy around the world by taking on international placements. 4 students have already had their placements in rural India in January with 6 more students slated for Austria, Colombia, Nepal and Sri Lanka. The MPT 2's are thrilled to put some new found skills into practice for the last two placements of the program.



MPT 2's at Ortho club learning about new evidence on myofascia and some effective hands on techniques

Highlights from the Research Trainee Program

Research trainees in the program have been very successful.



In the Boyd lab Masters Student, Jen Ferris was awarded a CIHR scholarship, undergrad trainee Jacob Jackson has been awarded both a HSFC summer scholarship and an NSERC Undergrad summer research studentship. PDF Bimal Lakhani won an inaugural Cynader grant and PDF Angela received a CIHR travel award. PhD Student Cameron Mang received the IODE War Memorial Scholarship; only 5 of these are awarded across the whole country so this is a testament of his excellence. Recently a publication Co-authored by Cameron Mang, PhD trainee supervisor Lara Boyd and committee member Kristin Campbell was released, '*Promoting Neuroplasticity for Motor Rehabilitation After Stroke: Considering the Effects of Aerobic Exercise and Genetic Variation on Brain-Derived Neurotrophic Factor*'. APTA produced a podcast on the topic featuring Lara Boyd and Cameron Mang which was released this month (<http://ptjournal.apta.org/site/misc/podcasts.xhtml>) and on April 1.

Alessio Gallina, Jayne Garland's PhD student, received a Vanier Scholarship.

Tara Klassen, MPT program instructor and PhD student supervised by Janice Eng was awarded a CIHR doctoral award, '*Determining Optimal post-Stroke Exercise (DOSE)*'.

Members in the Liu-Ambrose lab have recently received media attention for their work. Niousha Bolandzadeh was lead author on a publication which The Province wrote on (<http://www.theprovince.com/health/Study+shows+regular+exercise+helps+older+women+preserve+their+brains/9725890/story.html>). This article, '*Aerobic exercise increases hippocampal volume in older women with probable mild cognitive impairment: a 6-month randomised controlled trial*' led to an article (<http://www.ncbi.nlm.nih.gov/pubmed/24711660>) was co-authored by several other of Teresa's former and future trainees. Also work of Liang Hsu was featured the VCHRI website news (<http://nmo.vchri.ca/news?nid=3828>).

News from the Research Trainee Program

Sue Peters, PhD student

Sue Peters has a Master's degree in Physical Therapy and a Bachelor's in Kinesiology, both from the University of Western Ontario. While working clinically as a physiotherapist, Sue became interested in understanding how the brain functions, especially after injuries such as stroke. She decided to pursue a PhD in Rehabilitation Science in the Faculty of Medicine at UBC being co-supervised by Dr. Jayne Garland and Dr. Lara Boyd. Sue hopes to better understand the role of motor planning and how it contributes to motor performance after stroke.



After stroke, many people experience movement performance difficulties with standing balance and walking and consequently, receive physiotherapy treatment. We do not fully understand how deficits in movement planning influence movement performance. This gap in our knowledge limits the development of evidence-based interventions. Movement planning occurs in the brain before movement starts. We can see where and how planning takes place in the brain with functional magnetic resonance imaging (fMRI) and electroencephalogram (EEG). Using fMRI, I aim to find which parts of the brain are responsible for planning foot movements, and compare how movement planning on the side of the brain with the lesion differs from the non-lesioned side. Previous research shows that planning a hand movement after stroke stimulates an abnormal pattern of brain activity; both sides of the brain activate to compensate for the brain damage. However, it is unclear whether the same abnormal pattern occurs with leg movements. Functionally, we use our leg differently than our arm so how we plan leg movements is likely different from what we have learned by examining the arm. I hope to answer this question, which will enable the design of novel interventions to improve leg movement planning for individuals after stroke. Using EEG, I am examining the movement related cortical potential (MRCP) for planning leg stepping movements after a stroke. The MRCP is thought to be a measure of motor planning. I hypothesize that the MRCP will change with physiotherapy indicating that therapy improves motor planning.

Being a student in the PhD Rehabilitation Sciences program has been both challenging and rewarding! I would encourage any practicing PT's who are curious about how the body recovers from injury to consider being involved in research, whether by volunteering to participate in ongoing research run by the PT department faculty, or by considering an MSc or PhD.



Jayne Garland hanging around in her lab with trainees Courtney Pollock (PhD candidate), Kimberly Miller (Postdoctoral Fellow) and Sue Peters (PhD student)

Post-Doctoral Fellow Profile

Kimberly Miller



As a practicing clinician, I loved the teaching opportunities provided when I supervised students in their clinical placements or when giving the occasional guest lecture at Western University. Students were often daunted by the challenge of working with people with neurological conditions. I enjoyed their questions, as they spurred me to examine my practice; to better understand and explain the rationale for what I was doing with my patients. It was a love of teaching and learning, and the desire to inform clinical reasoning in planning my treatment that led me to where I am today, a Heart and Stroke Foundation Research Fellow in the Department of Physical Therapy with Dr. Jayne Garland at UBC. I coordinate the “FAST” study, also funded by the Heart and Stroke Foundation. This study aims to establish if specific training of fast movements and stepping will lead to improvements in balance and walking abilities over and above usual outpatient care in people returning to community following stroke. The use of fast movements as an intervention to retrain walking balance showed the capacity to induce short-term changes in the muscle activation necessary for balance and mobility. The effectiveness of the exercise in evoking longer-term changes in function or physiological responses is being determined using 6 week retraining program. Through this study we are learning more about the strategies people use the course of their recovery from stroke to keep their balance in response to their own movements, and when they are unexpectedly brought off-balance.



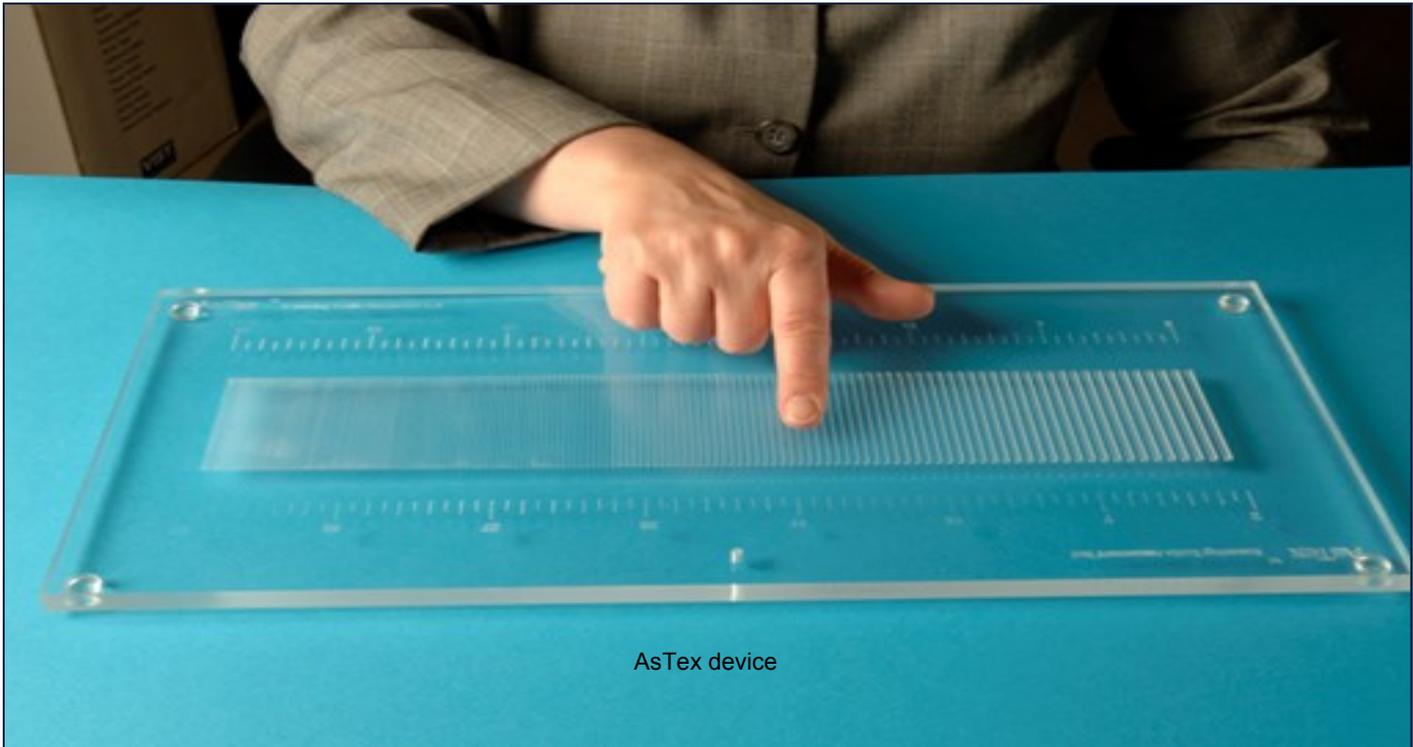
Balance assessment of a FAST study participant

Returning to work with Dr. Garland in Canada brings me full circle. I started my research training as her first MSc student in the early nineties. Following the completion of my MSc, I taught at Western University with Dr. Garland, before the lure of adventure and travel brought me and my family to Melbourne, Australia. In Australia, my children acquired great Australian accents, although I never quite managed a convincing, “G’day mate!” Despite my linguistic challenges (you do not call a ‘bum bag’ a ‘fanny pack’ in Australia), I was able to work as a Lecturer at the University of Melbourne, while I completed my PhD examining the effectiveness of intensive task-related training of the upper limb in the subacute phase following stroke. While I wouldn’t necessarily recommend working, studying and raising a young family in a foreign country, I’ve often observed that physiotherapists find unique career paths and this is something that I enjoy about our profession. As part of my study, I developed a hand sensation assessment tool, the AsTex™, featured on the ‘New Inventors’ <http://www.abc.net.au/tv/newinventors/txt/s2372258.htm>. I continue to collaborate with Melbourne researchers to adapt the device for use in assessing sensation in the foot, and to establish normative AsTex™ values for hand sensation testing in children. I currently supervise two PhD students from Melbourne; Libby Proud is investigating upper limb measures for people with Parkinson’s Disease and Kelly Bower is investigating the utility of the Nintendo Wii™ for assessment and

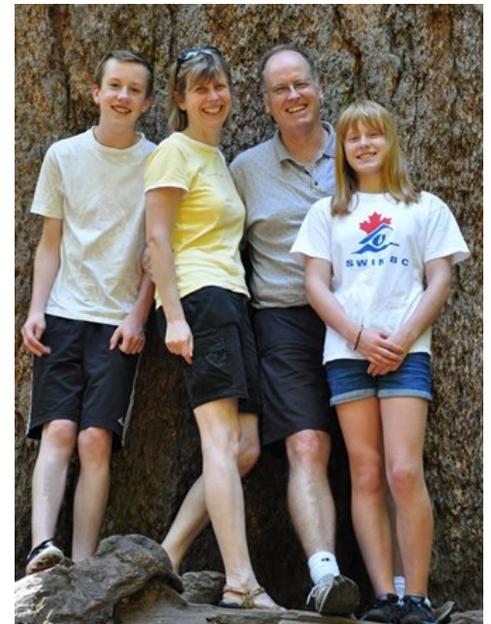
Kimberly Miller

Post-doctoral fellow

rehabilitation of balance following stroke. Kelly will be presenting her work on the feasibility of the Wii-Fit for balance training in a stroke rehabilitation setting at the June CPA Congress. I'm also supervising a group of UBC MPT students examining the relationships between recovery of balance and mobility and community integration for people with stroke in the first year following their discharge from hospital.



During my time at the University of Melbourne, I had the opportunity to coordinate entry-level neurological physiotherapy programs and the specialist Master of Physiotherapy by Coursework offered as an academic pathway for specialist titling in Australia. I also served as a Research Fellow for a hospital network responsible for knowledge translation and mentoring of clinicians in research activities. I hope to use this experience as I work with specialty groups to develop specialist streams that will build on the successful online MRSc program at UBC, meeting the needs of clinicians wishing to advance their practice and aligning with many of the requirements for the CPA Clinical Specialty Program. I'm enjoying working specialty groups on these initiatives and excited about the possibilities for new graduates and for experienced physical therapists. It's great to be back in Canada and to be here at UBC.



FOCUS ON:

Faculty



Spring is running season, and a lot of people start bouncing around on their Achilles tendons, which means increased injury risk. Alex Scott and team are still recruiting people with Achilles tendinopathy for a clinical trial looking at the effectiveness of IMS. You can read more about the study: The seasonal variation of Achilles tendon ruptures in Vancouver, Canada: a retrospective study at BMJ Open.

If you or one of your clients are interested in participating or have questions about this study contact Lyndal Solomons at 778 858 8903

Alex Scott recently presented on the topic of Achilles tendon injury prevention along with injury prevention guru Eric Witvrouw. This was an invited address at the International Olympic Commission meeting on Injury prevention in Monaco. Kristin Campbell participated in the Canadian Cancer Society's first research tweet chat on personalized health care in April. Lara Boyd was interviewed by the Vancouver Art Gallery for a new installment by Douglas Coupland, 'everywhere is anywhere is anything is everything'. Her comments were recorded and will serve as the audio guide for the exhibit running May 31 to September 1.



Department members have recently received news of Canadian Institutes of Health Research funding to further their programs. Janice Eng was awarded Collaborative Health Research Project funding for 'Wearable sensors to promote arm and hand function after stroke'. Linda Li is lead and Teresa Liu-Ambrose is a Co-PI and Knowledge Broker Alison Hoens will be leading the Knowledge Translation Core Facility for 'Knowledge translation to optimize mobility independence in older adults: Improving Cognitive & Joint health Network (ICON)'. ICON aims to optimize mobility independence in older adults by improving the use of effective interventions for cognitive and joint health. Pat Camp and her team of collaborators were successful on a CIHR Catalyst Grant: e-Health Innovations: Supporting More Efficient Population and Individualized Healthcare program entitled 'LungFIT: A Smartphone System for Pulmonary Rehabilitation'.



Teresa Liu-Ambrose was notified of her successful submission for an Alzheimer Society Research Program, Quality of Life, Research Grant. Naznin Virji-Babul received NSERC Discovery funding to support the basic science arm of her research program, 'Perception-action coupling in infancy'. Lara Boyd was awarded a NSERC Research Tools and Instruments grant competition to purchase an End-point robot for discovery of the neural correlates of motor memory consolidation in the human brain. This device enables the measurement of movement and force of both arms in 3-D space as well as the manipulation of trajectories of movement via force motor resistance.



Faculty Profile

S. Jayne Garland, Professor and Head

I received my BSc in PT from Queen's and after several years in clinical practice I went on to get a MCISc (PT) from the University of Western Ontario (UWO) and a PhD degree in Neuroscience from McMaster University. My first child was born two months before starting my PhD. My second child was born 4 months before starting my post-doctoral fellowship in August in sunny Tucson at the University of Arizona in the Departments of Physiology and Exercise Science. In 1989, I began my academic career at the University of Western Ontario (I finally got a proper maternity leave with my last child in 1992) and in 2000 became the Director of the School of Physical Therapy. After 20 years at Western, I left two adult sons behind and moved west with my husband and daughter so I could take over the Head position here at UBC. I delighted in the prospect of escaping the cold snow of London Ontario, arriving in sunny July. Little did I realize at the time we traded one form of precipitation for another!



I really didn't expect my career to unfold as it did. I pursued my Masters because the job market was not great in early 80s, my husband was doing his masters at the time and maybe I didn't want to be left out! I expected the masters to be my final degree because I thought you needed to be brilliant to do a PhD. A friend of mine, Karen Harburn from London, assured me that all you really needed was a healthy dose of perseverance and passion for knowledge. As I possessed both of those qualities, I pursued my PhD 4 days a week and did play dates with my son on the other day (that son is about to be a father himself as I expectantly await the birth of my first grandson in June!).

I had a keen interest in understanding how the brain controls muscle force production. I continue to pursue answers to scientific questions about how the nervous system interacts with the muscle to produce force and movement and whether the nervous system attempts to match the way muscle is activated according to the muscles' force producing capabilities. These broad research questions form the main research themes of my lab and are addressed under a variety of conditions: muscle fatigue, postural activities, and recovery from stroke.

I am committed to help build, establish and champion our profession. Beginning early in my career, I was Chair of the Neuroscience Division of the Canadian Physiotherapy Association (CPA), and a reviewer and then Chair of the Scientific Awards Committee for the Physiotherapy Foundation Canada (PFC), the sole funding agency specifically for physiotherapy in Canada. I sat on the Board of Directors of the PFC to provide scientific guidance to the Board and am an Associate Editor of Physiotherapy Canada. Since 2011, I have served as an appointed member of the

Faculty Profile (cont.)

Physiotherapy Specialty Certification Board of Canada (PSCBC) and recently assumed the position of Chair of this board. The PSCBC oversees the certification process of the CPA Clinical Specialty Program, including the review of assessor comments, scoring and recommendations to approve certification of candidates who have completed the program. In 2013, I began leadership as Chair, Canadian Council of Physiotherapy University Programs (CCPUP). This is a national organization which includes representatives from Canada's 14 physiotherapy university education and research programs, and physiotherapy colleagues from the accreditation, regulatory and association sectors. CCPUP provides leadership in topics, trends and issues pertinent to physiotherapy academic and clinical education and research.

My passion to advance the Profession led me into leadership positions at UWO and now here at UBC. This allows me the opportunity to work with exceptional people both within the University and to broader community to both raise the profile of the Profession and improve practice and thereby improve the health of all Canadians. Working with the excellent faculty here at UBC, and previously at Western, we have been able to bring a combined MPT/ PhD degree program to UBC; the first enrollee will begin in September. While at Western, it was also a privilege to work with Bev Padfield in leading the development of the first clinical masters in Manipulative Therapy in Physical Therapy in Canada. Jan Lowcock and Carol Kennedy have been working diligently with my postdoctoral fellow, Kim Miller, and I to house such an initiative within the online MRSc program here at UBC. With any luck, such specialty streams will also include neurosciences and pelvic floor rehabilitation. Unique to UBC, much of my energy has revolved around the expansion of the UBC MPT program to 80 seats, including a 20 seat Northern and Rural Cohort (NRC) which is designed to meet the needs of underserved areas of northern and rural BC. I am continuing to work closely with the University of Northern British Columbia, as well as Northern Health and the local community, to plan for the much needed growth of our program.

I am also proud to be a part of a working group that includes the Physiotherapy Association of BC and the College of Physical Therapists of BC to create a statement of core values for the profession; values that we hope will resonate with all physiotherapists from new graduate to expert clinician. This is intended to be much more than a definition for professionalism; it should be our "pledge of allegiance" and our "mantra" for being the best that we can be. We hope to start a special ceremony for students in which our newest members of the profession can be welcomed into the fold with the recitation of the physical therapy pledge.



It is hard to believe that my 5-year term as Head is nearing completion. It has been a pleasure and honor to serve the Physical Therapy community in BC and I look forward to continued leadership activities here at UBC in the future (in spite of the rain).



Jayne with PhD (Cand.), Courtney Pollock; Assistant Professor, Michael Hunt; Post-doctoral fellow, Kimberly Miller, PhD student Sue Peters and Research Coordinator Dr. Tanya Ivanova.

UBC's Master of Rehabilitation Science (MRSc)

FIND OUT WHAT IT MEANS TO ME....

Since 2010, the Masters of Rehabilitation Science program has asked graduating learners **“How has doing an MRSc made a difference to you and your career?”** Responses from 40 of the 43 graduates from 2010 to 2013 reflect themes that parallel the refrains of popular songs:

“I feel Good”: Positive feelings

The most common difference was positive feelings towards their careers. Feeling energized, with revived interest, commitment, connections and enthusiasm for their professions were noted; however, the word used above all others was **“confidence.”** Graduates also described feelings of pride, a tremendous sense of accomplishment, satisfaction and growth that came with achieving their personal and professional goals.

“Suspicious Minds”: Research knowledge and skills

Most MRSc grads spoke of increased knowledge, insight and ability in all aspects of research. For some, this opens up a new world of engagement in research post-MRSc, and benefits for patient care.

*Completing this degree primarily provided me a skill set and foundational knowledge about research method, rehabilitation program development and evaluation, the critical evaluation of research studies and the development of knowledge transfer plans from available research. Every appraised study and every completed research project contributed to broadening my vision, improving my **confidence** and reaffirming the need for honesty and candour in the search for and the development of evidence-based practice. - Nov 2012 Grad*

How it has made a difference? [My] abilities to understand and utilize research and to provide that information to clients so that they may make informed decisions. - Nov 2013 Grad

“The times they are a changin’”: New Opportunities

The MRSc opens up new opportunities. Some graduates describe moving into leadership positions, assuming new roles in research, administration, education or transitioning into new practice areas.

I found that over the years in the program I gradually assumed more leadership and research related activities in the workplace. – Nov 2012 Grad

I have taken on a new administrative role that requires a knowledge base that is definitely supported by the courses I took for the MRSc. I am not sure I would have considered this role prior to embarking on my master's. – May 2010 Grad

I've been able to remain current, relevant and competitive in a rapidly changing healthcare system [and] successfully expand my career options; I was recruited to my new department on the basis of some of the work I was doing – most of it grounded in new knowledge and skills acquired through the MRSc. The options available to me now far exceed any options I had prior to the MRSc. Respect for my work was only going to take me so far...I had started to hit the ceiling of my possibilities. - May 2013 Grad

“Shake it up baby”: Improving practice

Graduates with a variety of career foci (clinicians, educators, managers) and in various career stages (early years to approaching retirement) reported on being able to take on new challenges, advocate, and effect change in their profession and in the workplace.

*The process of going through the program has given me a kind of renewed energy, and appreciation of rehabilitation practice and research. I feel I can approach each patient **more confidently** as I consider what I have learned about the patient-centred approach, clinical reasoning, critically reading research, and seeking peer feedback (among other things). - May 2013 Grad*

Program development, implementation and evaluation, better writing and presentation skills, improved ability to develop educational programs and materials were other valued areas of skill and knowledge development. [Read more...](#)

UBC's Master of Rehabilitation Science (MRSc)

"A Whole New World": Changing thinking to changed practice

MRSc learners feel that over the course of their study, they enhance the ability to be reflective, to think critically and some report a broadening of their vision or perspective.

The master's program improved on my critical thinking skills, provided me with tools on how to effect change in my work setting, and I learned how to test my theories and rely more on making decisions based on data rather than on personal assumptions. - Nov 2012 Grad

*It has maintained my enthusiasm for the profession and has challenged my way of practicing, making me critically analyze what I am doing on a day- to-day basis. It has provided me **greater confidence** in decision making and advocating for services within various workplaces. - May 2013 Grad*

The MRSc has a vision for learners: **Change your thinking, change your view, change practice.** Our learners confirm these outcomes. To learn more about our grads work:

Workplace Research Abstracts

Join our [Research Relays](#)

2014: Our 10th Anniversary Year

It's time... Your Master's is Just a Click Away!

Check out course-based and research study options at www.mrsc.ubc.ca or email us at info@mrsc.ubc.ca

MRSc: Apply by April 30 for September entry; September 30 for January entry

GCR: May 15 for September entry; October 15 for January entry



**Carlie Vidal, PT and MRSc Graduate,
November 2013**

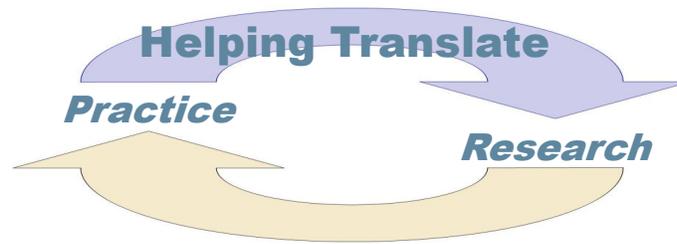
When asked why other physiotherapists should consider the program, Carlie says: *"For PTs it expands our horizons. We tend to be great at what we do with our hands and many are good at evidence based practice, but I now have teaching, writing, research skills as well, and this just allows me to do so many more things and improve the quality of my clinical work."*



**Congratulations MRSc 2013 Graduate
Jodi Boucher who received Physiotherapy
Alberta 'Excellence in Innovation'
Award**

KNOWLEDGE
BROKER UPDATE

Alison Hoens
Knowledge Broker



**Clinician/Researcher partnership provides perfect knowledge translation opportunity:
Advancing best practice for identifying patients needing x-rays post cervical spine
trauma**



An exciting partnership between BC PT clinical experts and UBC Department of PT researcher Dr Linda Li is coming to a successful conclusion.

Three years ago Clinical faculty members Marj Belot and Carol Kennedy approached PT Knowledge Broker Alison Hoens and PABC CEO Rebecca Tunnicliffe to seek support for BC PTs in determining which patients with acute traumatic neck pain required referral for medical imaging (x-ray). They assembled a team including Dr Linda Li, Guido Wistozki, Bill Lyons, John Howick, and MPT student Antonio Zenone and undertook a three phase process:

KNOWLEDGE
BROKER UPDATE

Alison Hoens
Knowledge Broker

Clinician/Researcher partnership provides perfect knowledge translation opportunity: Advancing best practice for identifying patients needing x-rays post cervical spine trauma

Phase 1: An online survey to determine current awareness, knowledge, and use of the Canadian Cervical Spine Rule (C-Spine Rule)

Phase 2: The results of the survey informed the need for and subsequent development of learning resources and tools to increase awareness and use of the C-Spine Rule in clinical practice.

Phase 3: The resources to support knowledge and use of the C-Spine Rule were disseminated

The project was important given that (1) each year in BC there are more than 60,000 motor vehicle accident related whiplash injuries of the neck and an unknown number of sport, fall and other traumatic neck injuries, and (2) PTs are primary care practitioners, and thus must be able to identify patients with potentially serious injuries (such as traumatic fractures, dislocations and significant ligamentous injuries) in order to refer them to a physician for imaging and appropriate medical management. Appropriate referrals for x-ray prevent unnecessary radiation, patient inconvenience and unnecessary burden on health care resources, as well as preventing complications associated with missed fractures and other serious neck injuries. The C-Spine Rule is a reliable and sensitive tool designed to determine the need for medical imaging in acute traumatic neck pain patients. It has been validated with emergency physicians, emergency room nurses, and paramedics but there was no research regarding its use by physical therapists.

The survey found that almost 60% of the 467 respondents were not aware of the C-Spine Rule. Further, in response to hypothetical cases, 43% would have recommended an x-ray when it was not indicated and even when an x-ray was indicated, the reasons many PTs recommended the x-ray were not consistent with the evidence supporting the C-Spine Rule. Five key barriers to adopting the C-Spine Rule in PT clinical practice were identified and the need for development of several resources was endorsed.

These resources (a video demonstrating its use, a laminated copy of the rule and frequently asked questions, a webinar highlighting how to use the rule, and templates of letters to physicians) were subsequently developed and piloted by the team (with the help of new members Melina Kurtakis, Peter Francis and Sarah Hrabí). They were unveiled at the PABC webinar on March 11, 2014 and are now available on the PT Knowledge Broker websites on both the UBC Department of PT (<http://physicaltherapy.med.ubc.ca/physical-therapy-knowledge-broker/the-canadian-c-spine-rule-project/>) and PABC. In addition, these resources are now being incorporated in both pre-licensure (MPT) and post-licensure (orthopaedic and sports continuing education) curriculum. Members of the team will be available to answer questions at the upcoming Practice Forum on April 26th.



Please feel free to contact Alison Hoens at Alison.hoens@ubc.ca with any questions.

We want to hear from you!

If you have a suggestion for a story, comment or would like to keep us informed about a change in your contact information, please contact us.

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