

FACULTY OF KINESIOLOGY AND PHYSICAL EDUCATION



ANNUAL RESEARCH REPORT 2015-2016



ANNUAL RESEARCH REPORT 2015-2016

MEET THE RESEARCH FACULTY	3	KPE RESEARCH FUNDING AWARDED – 2015-2016	18
INTERSECTING SCIENCE AND SPORT	4	2015-2016 SOURCES OF FUNDING	20
THESE WALLS CAN TALK: THE CHANGE ROOM PROJECT	5	OPERATION FUNDING BY YEAR AWARDED	20
HELPING YOUNG ATHLETES COPE WITH CONCUSSIONS	6	PUBLICATIONS (2015-2016)	21
RUNNERS PAY THE PRICE FOR QUICK CHANGE OF PACE	7		
PREVENTING CARDIOVASCULAR DISEASE ONE SQUEEZE AT A TIME	8		
BREAKING DOWN BARRIERS: SPORT, SEX AND IDENTITY SYMPOSIUM	9		
A LIFETIME OF HEALTH STARTS WITH A WALK TO SCHOOL	10		
RESEARCH FINDS POPULAR FREE FITNESS APPS ARE INACCURATE AND UNRELIABLE	12		
CANADIAN CANCER SOCIETY PRESENTS KPE PROFESSOR WITH AWARD FOR EXCELLENCE	12		
BODY IMAGE AND EMOTION	13		
SWEAT IS THE BEST ANTIDEPRESSANT	14		
FACULTY WELCOMES NEW PROFESSOR AND PIONEER IN CANCER CARE	15		
HOW BEYONCÉ STOLE THE SUPER BOWL HALFTIME SHOW	16		
PLAYING FOR CHANGE: HOW BRUCE KIDD INSPIRED A BOOK	17		

WELCOME

Welcome to the 2015-16 Research Report of the Faculty of Kinesiology and Physical Education.

This was another remarkable year for the Faculty, whose members continue to make meaningful research contributions, reflecting the multidisciplinary nature and intellectual richness of our institution. We hosted two sold out public symposiums that focused on the intersection of science and sport, and sexual identity in sports. We shared our expertise in important discussions about head concussions, running injuries and the benefits of walking, and explored alternate ways of preventing cardiovascular disease. We conducted projects to raise awareness about the locker room experiences of the LGBTQ community. Our faculty won awards and award winning faculty came on board. And, we launched the Mental Health and Physical Activity Research Centre (MPARC), the first research facility to integrate the study of sport and mental health.

The following pages offer a glimpse into the innovative, impactful and promising research endeavours of our faculty members and their trainees.

In line with last year's report, knowledge dissemination activities remain on a historical high as faculty members collectively published 128 peer-reviewed articles, 6 books and 27 book chapters. Such productivity continues to exhibit highly promising levels because faculty members also secured no less than 49 research grants and contracts, garnering more than 1.5 million dollars. These are exceptional funding totals for a Faculty of our size and will support knowledge creating for many years to come.

We are proud of our research progress and hope that you will enjoy reading this annual portrayal of our scholarly productivity.

Gretchen Kerr, Acting Dean

Faculty of Kinesiology and Physical Education



MEET THE RESEARCH FACULTY



Prof. Kelly Arbour-Nicitopoulos
Psychosocial predictors of physical activity - interventions in populations with chronic disability
kelly.arbour@utoronto.ca



Prof. Michael Atkinson
Physical cultural studies - bioethics and biopedagogies - violence, aggression & health - research methodologies
michael.atkinson@utoronto.ca



Prof. Tyson Beach
Biomechanics & ergonomics of work, sport and exercise - qualitative & quantitative analysis of human movement
tyson.beach@utoronto.ca



Prof. Simon Darnell
Sociology of sport & physical activity - sport for development & peace - sport & public policy
simon.darnell@utoronto.ca



Prof. Peter Donnelly
Sport subcultures - sport and social inequality - sport and space - sociology of risk taking
peter.donnelly@utoronto.ca



Prof. Guy Faulkner
Physical activity (PA) promotion in the community & rehabilitation - PA and psychological well-being in children & adults
guy.faulkner@utoronto.ca



Prof. David Frost
Musculoskeletal health & injury prevention - movement screening and evaluation - strength & conditioning
d.frost@utoronto.ca



Prof. Caroline Fusco
Sociology of physical activity & health - cultural geographies of child and youth physical activity/sport environments
c.fusco@utoronto.ca



Prof. Jack Goodman
Cardiac & hemodynamic response to prolonged exercise - cardiac rehabilitation - exercise and heart failure
jack.goodman@utoronto.ca



Prof. Michael Hutchison
Sport concussion & brain injury - rehabilitation - injury prevention - neuropsychology - epidemiology
michael.hutchison@utoronto.ca



Prof. Ira Jacobs
Exercise physiology - adaptations to acute short-term, high-intensity exercise - exercise pharmacology
dean.kpe@utoronto.ca



Prof. Gretchen Kerr
Harassment & abuse in youth sport - athlete-centred coaching practices - the retirement transition from sport
gretchen.kerr@utoronto.ca



Prof. Bruce Kidd
History & political economy of Canadian sport and physical activity - Olympic, Paralympic and Commonwealth Games
bruce.kidd@utoronto.ca



Prof. Marius Locke
Cellular response to muscle damage - heat shock proteins and their ability to protect skeletal muscle from damage
marius.locke@utoronto.ca



Prof. Margaret MacNeill
Health communication - health & physical literacy - visual media methodologies - critical policy studies of public health
margaret.macneill@utoronto.ca



Prof. Lynda Mainwaring
Emotional recovery from concussion, psychological recovery from dance & athletic injuries - sport psychology
lynda.mainwaring@utoronto.ca



Prof. Dan Moore
Muscle protein metabolism - sports nutrition - training adaptations - musculoskeletal health with exercise & disuse
dr.moore@utoronto.ca



Prof. Doug Richards
Concussions in sport, clinical sport medicine, biomechanics of injury - health & lifestyle - injury prevention
doug.richards@utoronto.ca



Prof. Catherine Sabiston
Psychosocial determinants of health behaviour - body-related emotions - physical activity & cancer - mental health
catherine.sabiston@utoronto.ca



Prof. Daniel Santa Mina
Exercise and the cancer continuum - prehabilitation - professional practice in kinesiology
daniel.santamina@utoronto.ca



Prof. Katherine Tamminen
Sport psychology - stress, coping & emotion - youth sport & adolescent athletes
katherine.tamminen@utoronto.ca



Prof. Scott Thomas
Increasing access to cardiovascular health - exercise and aging - exercise and performance - fitness testing
scott.thomas@utoronto.ca



Prof. Luc Tremblay
Multisensory integration: vision, proprioception, audition - neuromotor control of voluntary action
luc.tremblay@utoronto.ca



Prof. Greg Wells
Physiological assessment & training - high performance sport - chronic diseases in children - respiratory physiology
greg.wells@utoronto.ca



Prof. Tim Welsh
Planning & control of goal-directed limb & eye movements - selective attention - movement in social contexts
t.welsh@utoronto.ca

PUBLICATIONS SUMMARY	Count
Awards	5
Books	6
Book Chapters	27
Conference Abstracts	59
Conference Presentations	258
Intellectual Property	2
Non-Peer Reviewed Articles	33
Peer-Reviewed Articles	128



Intersecting science and sport

With the help of professional athletes, KPE researchers showed how science and sport combine at the Faculty's eighth public symposium on May 12.

When Dave Ross first started coaching trampoline athletes in the 1970s, sport and science weren't nearly as intertwined as they are now.

"We didn't have nutritionists, sport psychologists, or biomechanists," he says of the days before trampolines became an Olympic sport. "There was no support for the team the way there is now."

But the "science-minded" Ross – a one-time physics student who manufactures trampolines in addition to coaching Olympians such as gold medalist and University of Toronto student Rosie MacLennan – appreciates just how much sports technology has advanced, particularly in the digital age.

Tiny body sensors can now measure body motion and muscle activity while athletes train. A "wearable lab" in the form of an instrumented face mask can provide detailed information about heart and lung function in athletes, while they are training. And a cell phone app can now be used to gather real-time data about how stress and emotions affect a team's performance during a game.

With the countdown underway to the Toronto 2015 Pan Am/Parapan Am Games, all of these technologies and more were showcased May 12, at the Goldring Centre for High Performance Sport. The event was part of the Faculty of Kinesiology & Physical Education's eighth public symposium – made possible with support from U of T's senior advisor on science and engineering engagement, University Professor Molly Shoichet.

More than 650 members of the public seized the opportunity to watch KPE professors demonstrate the latest innovations in sport science with the help of some of Canada's top athletes. Ross participated in the event alongside MacLennan, who kicked things off with a spectacular trampoline routine for the crowd.

With the help of wheelchair basketball player Flavio Pagliero, Assistant Professor Greg Wells demonstrated how the body's systems respond to extreme conditions, including extremely intense physical exertion performed routinely by high performance athletes. Wells outfitted Pagliero with an instrumented face-mask called a spiroergometer. Via Bluetooth, the device collected data about Pagliero's physiological responses to exercise such as heart rate, oxygen uptake, carbon dioxide output, respiratory exchange ratio, breathing rate, tidal volume, minute volume, and velocity of movement.

With the data streaming to the huge digital scoreboard above the gym floor, Wells was able to point out the moment Flavio's muscles were likely contracting hard enough to accumulate lactic acid, and show the audience how Pagliero's breathing and heart rate quickened when they cheered him on for a free throw – useful information for athletes and their coaches.

"We now have mobile technology that allows us to look at the human body in a non-invasive way," Wells said. "It can give us real insights into what's happening in competition-like situations."

Next up was Professor Tim Welsh who, with help from a GoPro® camera, demonstrated how MacLennan uses sensory cues to plan and control her actions while on the trampoline. As MacLennan flipped some 20 feet in the air, Welsh, whose research focuses on the cognitive and neural mechanisms that people use to achieve their movement goals, described how MacLennan was using visual and vestibular information to make very slight hand and arm movements to ensure a perfect landing and take-off each time.

"To make decisions," Welsh said, "Rosie only has 0.3 of a second: about the same amount of time a professional baseball player has to decide whether or not to swing his bat. Whereas a baseball player, only needs to be successful 35% of the time to be considered a great hitter, Rosie needs to be right 100 per cent of the time. That's pretty amazing when you think about it."

Professor Katherine Tamminen demonstrated how a more ubiquitous form of technology is used in her research: the cell phone. Tamminen provided cell phones to wheelchair basketball players Pagliero, Sarah Black and Dani Bigu. The athletes recorded their emotions during the event, using Experience Sampler, an app created by researchers at U of T. The data was then compared to similar observations that had been recorded during the previous week.

"We used to do this [sort of research] using pencil and paper survey, or with online surveys completed by athletes at home, in front of a computer," said Tamminen. "Now, athletes are able to record their experiences, quickly, after games and practices. It makes data collection much easier."

Tamminen's work in the Sport and Performance Psychology Lab examines stress, coping, and emotions among high performance athletes. "I'm interested in not only how athletes' emotions influence their functioning and performance," she said, "but also, how those messages are communicated among teammates."

Finally, Professor Tyson Beach, a biomechanist with the Faculty, took to the field house floor to show how he uses force and motion measurements to study athletic performance and risk of injury. Beach's team creates mathematical models of the human body: "these help us understand how the movement system functions mechanically – from the standpoints of performance, durability and longevity."

After attaching motion-tracking markers to MacLennan, Beach had her perform a series of drop jumps onto a force plate. The deceptively simple-looking metal square on the floor fed information to a computer and provided readings about the amount of power MacLennan could produce in a simple jump (far more, of course, than a non-Olympian would). Beach and his team use their research to develop assessment tools that can be applied by coaches in training environments.

"This evening's event truly is unique because it brings together something we are all very familiar with – sport – with a world that's unknown to many of us – sport science and research," said Master of Ceremonies Tom Harrington of the CBC.

"To have an opportunity like this one, in which we bring together athletes, coaches and researchers for live demonstrations to explore this impact is amazing."

Published online, May 2015 by Cynthia Macdonald

PHOTOS/JOHN HRYNYUK



We might not
be the
most visible
but we are here.
We can make
this space
our own.

Stacey, Lesbian, Personal Trainer,
Undergraduate Student

THE
CHANGE
ROOM
PROJECT

THESE WALLS CAN TALK: THE CHANGE ROOM PROJECT

Professor Caroline Fusco's Change Room Project provided a rare opportunity for U of T students to share how they feel about their comfort levels locker rooms through an installation that will be on display in U of T athletic facilities just in time for the Pan Am and Para Pan Am Games.

"The first time I encountered a homophobic slur was written on the wall in a locker room in my elementary school." –Elise, Lesbian, Graduate Student

Walking into a gym locker room can evoke a spectrum of emotions—for many users, it's a get-in-and-get-out-fast- type of experience. But few people talk about why they feel the way they do about these spaces. Professor Caroline Fusco's Change Room Project provided a rare opportunity for U of T students to share how they feel about their comfort levels in locker rooms through an installation that will be on display in U of T athletic facilities just in time for the Pan Am and Para Pan Am Games.

Originally inspired by graffiti, the student voice and fusing the academic and the co-curricular, Fusco surveyed 54 students, including some from her "Geographies of Health" class and others from U of T more broadly, including the LGBTQ community. The questionnaire explored various topics related to the locker room experience and culture. "This sort of space involves intersections of cleanliness, hygiene, nudity, the body and the sense of looking at other people's bodies," Fusco says. "It's an everyday, mundane space; but it's a very contested space too." The answers revealed themes of inclusion,

gender, safety, the body, guilt, shame, homophobia and surveillance. Amanda De Liso, Fusco's graduate student and research assistant on the project, selected excerpts from the questionnaires that represented these key themes. Working with Hart House's program coordinator Day Milman, the phrases were then passed along to a graphic designer who turned them into vinyl wall decals that will be on display inside change rooms and common areas of athletics facilities on St. George and Mississauga campuses. An overview version will be available at UTSC during the Games. The exhibit will also have a presence at Pride House Toronto and U of T Houses during the Games. The project aims to open up conversations about topics many consider taboo, while addressing critical issues that pertain in particular to lesbian, gay, bi-sexual, transgendered and queer students and athletes.

"Visibility, voice, recognition and awareness are steps toward the creation of inclusive spaces," says Michelle Brownrigg, kinesiology and physical education's director of physical activity and equity. "The Change Room project provides a voice and recognition, especially for LGBTQ students in a visible way to create awareness around the issues that can arise for members of those communities as they seek to participate in physical activity and sport."

Brownrigg says the project should help to foster dialogue and inform other important steps, including improved staff training and programming, to create more welcoming and inclusive spaces at U of T.

Fusco is pleased with the final project. "As well as being an important intervention, I think that it's a pretty creative way of disseminating and mobilizing knowledge beyond a publication. I'm happy that it will be visible to the U of T community and the GTA public, more broadly."

Learn more about the project on the Hart House website. Share your thoughts on Twitter #changeroomproject. Feedback will contribute to ongoing research on the locker room experience and will be used to help work towards creating more welcoming and inclusive spaces for all.

Also, watch the Canadian Olympic Committee's One Team video that features, athletes, coaches and allies working towards making locker rooms, classrooms and our sports environments more LGBTQ-friendly and welcoming for all.

Published online, June 2015 by Valerie
Iancovich

Helping young athletes cope with concussions: Q&A with Professor Michael Hutchison



As many as one in five Canadians have suffered a sport-related concussion before the age of 18, according to a recent Angus Reid Institute survey. While most people know concussions affect countless professional athletes, this alarming general population survey doesn't surprise Michael Hutchison, a professor in U of T's Faculty of Kinesiology and Physical Education.

As the Director of the Concussion Program at the Faculty's David L. MacIntosh Sport Medicine Clinic, he's at the forefront of investigating ways to manage these complex injuries in more effective ways.

In this Q&A, he explains why understanding sport-related brain injury is so important, and how he's helping to protect our young athletes' brains and futures.

Why is it important to study concussions in young athletes?

In the past, researchers primarily studied this injury in adults and professional athletes. But new studies show young athletes are a unique population and recover more slowly from concussions than adults. This is partly because young athletes' brains are still developing, but it's also due to a lack of awareness. For example, a child could play on a community sports team, suffer a concussion and not have any trained professionals around to identify the injury. Also, the young athlete may not know they should tell an adult, or how to articulate their symptoms. It's important we have dedicated

research to examine younger athletes so we can understand what's happening to this specific population. We want to manage their symptoms and recovery more effectively.

Why are brain injuries underreported?

We often rely on data from U.S. high school or university databases and emergency room visits. But the numbers don't necessarily reflect the "milder" injuries — many athletes who suffer a concussion don't go to the emergency room and there is no way to systematically capture this information. We also have difficulty diagnosing concussions because they don't show on common imaging technology, including CT scans.

How do you help athletes cope with concussions?

The Faculty developed one of the first comprehensive programs in the country to deal with concussions among student athletes. We've worked closely with the MacIntosh Clinic to develop specific protocols for students and athletes.

It is important to keep in mind that young athletes lead complex, busy lives including school, social activities and sports. After suffering a concussion, young athletes might have trouble dealing with all of these activities. By managing and gradually re-introducing different physical, cognitive and sensory stressors, we help adolescents and adults return to their daily activities.

How is your research changing our understanding of concussions?

We're using sophisticated imaging technology with our colleagues at St. Michael's Hospital to study the structural, functional and metabolic changes in the concussed brain. We're also partnering with Canada's Department of National Defence to study novel inflammatory markers in the blood. We're trying to identify and track the metabolic cascade of neurons over time and how this relates to athletes' recovery. Our hope is to improve the way we measure recovery as well as to identify those who might be at increased risk of injury or longer recovery time.

What advice would you give to concerned parents?

Unfortunately, there's no magic bullet to prevent or cure concussions. When participating in activities, there's always a risk of getting injured. Common sense is always the best approach though. In terms of prevention, we recommend using helmets and limiting risky behaviour. And if a young athlete does suffer a concussion, it's important to stop the activity immediately and seek medical attention.

Published online, December 2015 by Katie Babcock

PHOTOS/ JOEL JACKSON



Runners pay the price for quick change of pace

Concerned with the injury risks facing amateur fitness freaks, a kinesiology expert from University of Toronto advises “to train to run before you run to train.”

Marissa Wener had always been active with sports but thought the Nike Women’s 15k held this June sounded cool after seeing the race promoted on Instagram and Facebook.

This spring, she jumped from running five kilometres before work to weekend runs of 12 kilometres or more, which she called “a huge mistake.”

“I just wanted to keep going further,” said Wener, 24.

But just before the June race, she blew out both heels in a bout of Achilles tendinitis, dashing a summer running season and any faint hopes of a half-marathon this fall. It was painful just to put her feet on the floor in the morning. After months, she’s finally healed but only has time for a few fall runs before putting her shoes away for the winter.

“Once it starts getting nice out, I’m going to give it a go, but do it properly this time around,” she said.

With so many friends posting Instagram photos of a running route by the lake and #crewlove photos of new spandex-clad pals gripping a bagel and a medal at a finish line, it’s tempting to think “I can do that.”

Social media has inspired a mainstream boom in distance running, but a new passion for the sport can often bring with it sudden knee pain or a swollen foot, sidelining newbie runners for weeks or even months.

“In the last five to seven years, we are probably seeing double the number of runners’ injuries,” said Adam Brown, a physiotherapist for 13 years.

“There are more runners and the vast majority of them are amateurs,” said Brown, also a runner himself. Though all runners will likely get hurt at some point, studies have shown that newer runners are more prone to injury, mostly from increasing mileage too fast. Some runners have poor form as well, like rolling the foot too far outward or knees too far inward.

“I think social media has encouraged people to just take it on, on their own,” Brown said. “What that means is a variety of training errors occur. If nobody ever looks at the way you run and makes form suggestions, there’s a risk you’re running poorly, which is the next biggest reason we have runners’ injuries.”

Ten years ago, when the Scotiabank Toronto Waterfront Marathon had 9,647 participants, runners were still a strange breed: serious

loners or huddled in packs at dawn on Sundays. Many were part of members-only clubs or joined marathon clinics with fairly strict training regimens.

This year 28,000 runners were expected, including hardcore competitors, charity runners and what Canada Running Series race director Alan Brookes calls “healthy-lifestyle runners.”

The new interest in running is caused in part by millennials, Brookes said, adding that demographic is more likely to join a loose crew than a group with formal coaching.

The boom is also what led Toronto chiropractor Kris Sheppard to open the Runner’s Academy in 2014. Races are getting better at marketing themselves and hyping up would-be participants, but that means they could be seriously underprepared when race day comes around, he said.

“We started because we were seeing a lot more people running and they were running into issues,” Sheppard said. “The biggest issue with people getting injured is ramping up too quickly.”

A 2014 study in the *Journal of Orthopaedic & Sports Physical Therapy* found runners who increased less than 10 per cent over two weeks were less likely to get injured than more ambitious counterparts.

“You need to train to run before you run to train,” said David Frost a University of Toronto kinesiology professor, biomechanics expert and coach who recommends “baby steps” and ensuring proper alignment.

Though no body keeps track of injuries, “with more people becoming active and getting involved in running races, we are also seeing an increase in the number of people getting hurt while training,” Frost said.

Published at thestar.com, November 2015 by ZOE MCKNIGHT

Running into pain

Though many runners will eventually become injured, the five most common running injuries can mostly be prevented by appropriate strength training, a gradual increase in mileage and proper running form.

Achilles tendinitis

This repetitive-strain injury occurs when the body’s largest tendon, which connects the heel to the calf, begins to break down and becomes inflamed. It can thicken and cause swelling, or even calcify and harden. It is typically caused by a sudden increase in distance or intensity, as well as tight calves — another common problem in runners. Recovery time can be several months and treatment includes rest, ice and calf stretches.

PHOTO/ISTOCK PHOTO

Plantar fasciitis

The long, thin band of ligament known as the plantar fascia that supports the arch of the foot can become inflamed with overuse, causing severe pain in the heel. High arches, new or increased activity, and tight calves can lead to inflammation and stiffness. Recovery time can be several months or even a year, and recurrence is common. Treatment includes rest, ice, and calf and arch stretches, especially in the morning.

Runner’s knee

Also known as Patellofemoral Pain Syndrome, the telltale symptom is sharp pain around or behind the kneecap. It can be caused by poor tracking of the kneecap over the thigh and shin bones, as well as damage to the tendons and soft tissues around the knee joint. In runners, the common cause is overuse or a sudden increase in mileage. Treatment often requires physical therapy and toning the quadriceps and hamstring muscles.

Iliotibial band (IT band) friction syndrome

Another overuse injury, the repetitive flexing and extending of the IT band, which runs along the outside of the leg from the pelvis to the shin, can cause inflammation and sharp pain. Hill running, greater-than-normal mileage and weak glute muscles can all contribute to the syndrome. Stretches specific to the IT band area and strengthening the hips and glutes are important to recovery.

Stress fracture

When muscles become fatigued from overuse, they can no longer absorb shock properly. A tiny crack can form in the bone, most often the tibia in the shin or the foot’s long metatarsal bones, causing severe pain and reduced mobility. X-ray cannot always detect the fracture and a bone scan might be needed. Rest — no impact sports — is critical to recovery, which can take several weeks or even months.

Source: *American Academy of Orthopaedic Surgeons*



Preventing cardiovascular disease one squeeze at a time

According to Health Canada, the risk of developing cardiovascular disease increases with age, but a novel handgrip exercise strategy could help prevent its onset. It was designed by Danielle Bentley, who recently earned her PhD degree in cardiovascular physiology at the Faculty under the supervision of Professor Scott Thomas. In her thesis, Bentley explores the effects of the novel handgrip exercise on blood pressure in post-menopausal women.

How did your study come about and what are the key findings?

Both patients and clinicians have expressed a desire for research on alternative treatment options for cardiovascular disease to improve health. As a lifestyle intervention, handgrip exercise is emerging as a successful way to reduce resting blood pressure and regulate the nervous system.

In research, common handgrip protocols prescribe sustained grip squeezes at low-to-moderate intensities. We measure this in real time with specialized laboratory or at-home equipment. But this approach isn't accessible for the general population. Accessibility is especially important for older women, who not only are at an increased risk of developing cardiovascular disease after menopause, but who also have low adherence to traditional whole body aerobic exercise.

What alternative do you propose?

My doctoral work was dedicated to developing a novel handgrip exercise strategy specifically for post-menopausal women that was highly accessible, easy to use and participant-informed. The grip force, timing of squeeze-rest cycles and total exercise duration were all selected to align with the unique physiological responses of this age group.

This was tested among a diverse group of women with various resting blood pressures. It measures how the heart and blood vessels react to the exercise, while ensuring overall safety for future at-home use. As part of developing this strategy, I collected feedback from older women in the community to create a tool for high-intensity interval handgrip squeezes.

What kinds of results did initial testing of your exercise strategy reveal?

We found that following our protocol for eight weeks effectively reduced resting systolic blood pressure and helped to regulate participants' nervous system. In addition to these positive physiological changes, adherence was high for this at-home training program (96.9 per cent) and participants said they enjoyed the process.

What happens next?

The future is filled with more research questions and lots of potential for handgrip exercise. Specifically, I would like to use large studies to directly compare the effects of high-intensity handgrip exercise and aerobic exercise.

We know that regular aerobic exercise provides improvements for many health outcomes that handgrip exercise alone does not. This includes improvements to blood lipids, weight loss, whole body muscular strength and endurance. The goal is to determine the role of handgrip exercise in the larger "lifestyle alterations" picture.

Can we perhaps use handgrip exercise as an introduction into healthy lifestyle behaviours for reluctant individuals? If this exercise is added as a component of a larger exercise program, will there be additional benefits for blood pressure reduction? What I do know though, is that handgrip exercise can create real health benefits with relatively little work. This, in and of itself, is very interesting and we will continue to explore its full potential.

Published in *Pursuit* Spring 2016
by Jelena Damjanovic

PHOTO/ JOEL JACKSON



Breaking down barriers: Sport, Sex and Identity Symposium

When Olympic gold medalist Mark Tewksbury came out in 1998, he challenged people's perceptions of sexual identity and sport: he was masculine, a competitive athlete and he was gay. Since his announcement, much progress has been made in gender equity and sexual diversity in sport.

But there's still a long way to go. The dialogue he started 18 years ago continued as he moderated the Faculty's Sport, Sex and Identity Symposium.

Held at the Isabel Bader Theatre on April 6, the symposium featured four of the Faculty's leading researchers who discussed how sport reflects and defines our cultural identity, shapes gender roles and impacts human rights. This year's event, the ninth instalment of the public lecture series, encouraged U of T students, staff, faculty, alumni and community partners to join the discussion.

"This symposium showcases the Faculty's ground-breaking research, which affects every Canadian from the community level to the highest level of competitive sport," said Associate Professor Luc Tremblay, who is also the Faculty's associate dean of research and the chair of the symposium organizing committee. "We want to stimulate debate and break down the barriers that prevent people from being physically active."

Kicking off the event, Associate Professor Margaret MacNeill described sport media as a barrier that reinforces strict gender stereotypes

and excludes minorities. "We tease apart sex and gender in sport and the media — there are the men's and women's events in the Olympics. But in reality, an individual experiences culture and biology together and their identity is often fluid." MacNeill urged the audience to use social media to celebrate individuality and diversity and create a more inclusive dialogue.

Beyond the media, masculine stereotypes create another barrier in sport and often prevent depressed male athletes from seeking help. "Males are expected to be strong, aggressive and resilient, but emotionality is not a stigma and masculinity is neither singular nor directly tied to athleticism," said Professor Michael Atkinson, who is the Faculty's acting vice-dean of academic affairs. "We need to question the assumptions we've made about gender, sexuality and sport."

Also questioning these assumptions, Associate Professor Caroline Fusco presented the Change Room Project, an exhibition that combated exclusion by reflecting LGBTQ students' experiences in the locker room. Fusco showed a vinyl installation from an undergraduate student that read, "I'm self-conscious about what I do and say in the locker room... Then I thought, when people say or do something homophobic in there, do they really care how I feel?"

Keynote speaker Professor Bruce Kidd wrapped up the evening by describing how sport policies can lead to gender policing in competitive sport. He presented the ongoing struggle against sex

testing and the discrimination against Dutee Chand, a female sprinter with naturally high testosterone levels. Chand's coach, manager and the Indian Athletic Federation encouraged her to undergo medical treatment to lower her testosterone to comply with the IOC and IAAF's regulations, but she refused. With Kidd's help, she is now seeking to abolish this policy.

"We should respect the essential right of gender self-identity, which is fundamental to human rights and the ideal of self-expression that is the basis of sport," said Kidd, former dean of the Faculty and vice-president and principal of University of Toronto Scarborough. "Dutee said it best, 'I still do not understand why the IOC or IAAF think they may need such a rule at all. I should be able to run the way I was born.'"

While the struggle for gender equity and sexual diversity continues, the symposium represented a key opportunity to advance the discussion, showcase leading-edge research and promote individuality, physical activity and human rights.

"Conversations make the world change," said Tewksbury. "I'd like to salute U of T for hosting this public forum for the betterment of society and for shining a light on these challenging issues."

This symposium was generously sponsored by U of T Affinity Partners MBNA and TD Insurance.

Published in *Pursuit* Spring 2016
by Katie Babcock

A LIFETIME OF HEALTH STARTS WITH A WALK TO SCHOOL



According to the 2015 ParticipACTION Report Card on Physical Activity of Children and Youth the vast majority of school-aged kids still aren't getting enough physical activity – only 5 per cent of 5-to-19-year-olds in Canada reach the daily minimum of 12,000 steps. Adding a walk to and from school is a simple way to help reverse this trend.

Doctoral candidate George Mammen has worked closely with Professor Guy Faulkner and conducted extensive analysis of active transportation—including his most recent publication, “Putting School Travel on the Map.” Below, Mammen dispels some myths and fears about the walk to school and explains the many advantages of taking the car out of the morning commute.

What are the biggest misconceptions about walking to school?

To be more "protective," parents often think it is safer to drive their child(ren) to school rather than letting them walk. In reality, evidence shows that children are more likely to be harmed in a car accident compared to walking to school.

How do you respond when parents say they are concerned about strangers and traffic?

Research shows that children are at a higher risk of injury when being driven compared to walking to school. I would suggest families get to know their neighbours with children attending the same school and create "walking groups" or "walking buddies." This would help limit parents' fears around active school travel, create a stronger sense of community and ensure that everyone feels confident about the new routine.

What are the mental health benefits of walking to school?

Children who walk to school have been found to have higher academic performance in terms of attention and alertness, verbal, numeric, and reasoning abilities; a higher degree of pleasantness and lower levels of stress during the school day; and higher levels of happiness, excitement and relaxation on the journey to school. Walking to school can further foster personal growth by developing a sense of independent decision making, emotional bonds with peers and the natural environment, and road and traffic safety skills.

What about the physical benefits?

Active travel is one source of physical activity, and with more physical activity comes increased metabolism, improved cardiorespiratory fitness, and lower weight and BMI.

Is there an ideal distance children should walk to reap the benefits? Or is there a distance that is too far?

Research has shown that living greater than 1.6 km from school was deemed "too far to walk." However, it's important to remember that any minute you walk is contributing to the daily guidelines for physical activity in children (i.e., 60 minutes). When walking to and from school, you can accumulate between 15 and 45 minutes of your daily physical activity.

How is the walk to school linked with other unstructured physical activity, for example bike riding or playing at the park?

Compared to children who are driven to school, children who walk are found to be more active overall through other physical activity sources such as organized sport and unstructured "active play."

You've reviewed research that analyzes the walk to school in various countries and cultures. What are some of the trends you've observed?

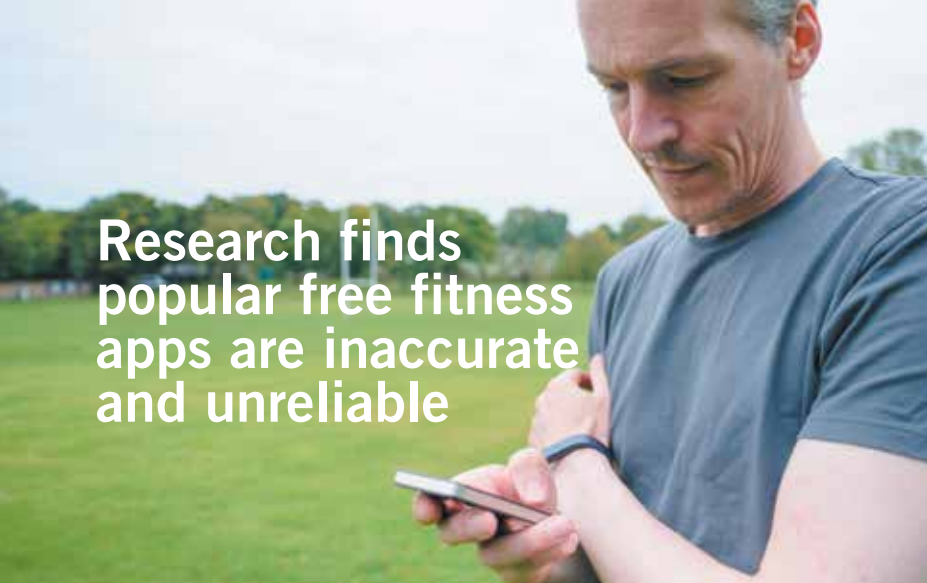
Over the last five decades, there has been a decline in the number of children walking to school in many countries, including Canada, Australia, New Zealand, Switzerland, Vietnam, Brazil, the UK and US. This is why this research topic is so important—to reverse these trends globally and help increase this very important source of physical activity.

What are some of the real barriers to parents allowing their children to walk to school?

Among the families who live within a "walkable" distance from school, parents typically identify safety and time issues as main barriers. I would suggest that parents let their child(ren) walk with friends. I would also advise making small changes to their schedules like heading to bed and waking up a bit earlier than usual to make time for this very important part of their day.

Published in *Pursuit* Fall 2015 by Valerie Iancovich

For more information and research findings about active transportation, watch our public symposium “What Happened to Walking? Encouraging Active School Travel in Toronto,” featuring Professors Guy Faulkner, Caroline Fusco and Ron Buliung, and Toronto's chief planner Jennifer Keesmaat at www.physical.utoronto.ca under Lecture Series + Events.



Research finds popular free fitness apps are inaccurate and unreliable

GPS navigator, recipe finder, camera, music player: the phones that most of us use today go well beyond voice-to-voice communication. However, if you thought your smartphone could also serve as an inexpensive, pocket-sized personal trainer, newly-published research has found that the three of the most popular, free apps designed to track your fitness progress are seriously flawed.

The evaluation was led by Professor Guy Faulkner and KPE master's student Krystn Orr and was published in the journal, BMC Research Notes.

"We know that more and more Canadians want to take their health into their own hands and these apps seem like a good way to do just that," Orr explains. "Self-evaluation can be very effective in lifestyle change as well, so it's important that people are getting the most accurate information possible and using tools they can trust."

The work was inspired by a larger project, Rise at Work, evaluating workplace physical activity at University of Toronto. The researchers were looking for a cost-effective, accessible way to track steps and noted that, to date, there has been a relatively limited number of published research papers looking into commercial smartphone pedometer applications. When they launched their research last November Accupedo, Moves, and the Runtastic Pedometer apps were the most popular free downloads, so they ran each through a series of tests to measure their accuracy. Each of the apps is compatible with Android and Apple smartphones and gathers step stats via the phones' built-in accelerometers, GPS navigation tools, or a combination of both.

Subjects used the apps in a variety of scenarios. The most basic was a simple, 20-step test during which they wore a traditional pedometer on their hip and held the phone in their hand. They found that in each instance, the pedometer was pretty much bang-on, but the phone apps were off by about five percent. Similar results were found after a 40-step stair climb test, three days of unstructured, regular activity and a treadmill test.

The team also found that the tools weren't quite as smart as they claimed. When one researcher found her phone tallied steps when she was actually stuck sitting in traffic, the team was inspired to add a driving test to official research. They found that with each app, the GPS tool interpreted the car moving slowly as the subject walking.

Overall, researchers say there was "an unacceptable error percentage in all of the applications when compared to the pedometer."

So, if you're looking for a tool to help keep your fitness goals on track and your new year's resolutions in sight, Orr suggests investing in the wearable technology that was designed specifically for tracking movement as previous studies suggest they are more accurate. However, she points out that wearable tech like can get pricey. "Really, there's no reason you can't just stick to a traditional pedometer. It's probably the most reliable and cost-effective tool for self-tracking your steps."

Published in *Pursuit* Spring 2016 by Valerie Iancovich

PHOTOS/ISTOCK



Canadian Cancer Society presents KPE professor with Award for Excellence

Catherine Sabiston, associate professor at the Faculty of Kinesiology and Physical Education, has been awarded the 2016 William E. Rawls Prize Award for Excellence by the Canadian Cancer Society.

"This prestigious award is given to a younger researcher whose work has significantly contributed to cancer control," said Luc Tremblay, associate professor and the Faculty's associate dean of research. "Dr. Sabiston's research is instrumental to the optimal integration of physical activity with cancer care and survivorship."

This prize recognizes Sabiston's innovative strategies to encourage cancer patients to exercise, helping them to reduce feelings of depression and anxiety and improving their overall health. One of her major initiatives, called ActiveMatch, is an online partnering system designed to help female cancer survivors find an exercise partner.

"We realized that women who had breast cancer had declining levels of physical activity because they lacked social support," said Sabiston, also a Canada Research Chair in Physical Activity and Mental Health. "It's important to build a sustainable program that women will enjoy, and we've designed ActiveMatch to work outside hospital and lab settings."

Sabiston is also a co-principal investigator on ProjectMOVE, another strategy that helps women diagnosed with cancer customize their physical activity.

"In this project, women diagnosed with breast cancer submit applications for small funding initiatives to build programs including yoga, Nordic pole walking and active gardening," said Sabiston. "It's about creating a program from the grassroots level and asking women what they want."

In the future, Sabiston plans to expand ActiveMatch, ProjectMOVE and a broad range of other research initiatives.

"We need to make a difference in these women's lives, in people's lives in general and make a substantial impact on society."

Sabiston will be presented with her award at a ceremony in Toronto later this year.

Published online, June 2015 by Katie Babcock

PHOTO/ JING-LING KAO-BESERVE

Body image and emotion: investigating why many adolescent girls drop out of sports



Seeing a rink occupied exclusively by female hockey players isn't the rare sighting it was 15 or 20 years ago. Yet while the opportunities for girls in sport continue to grow, participation numbers remain lower for girls. Moreover, girls tend to drop out at higher rates, often at a time when they are experiencing physical changes as young as nine or ten years old.

Associate Professor Catherine Sabiston is conducting a study exploring how feelings about appearance—both positive and negative—influence girls' likelihood to stay involved in sport. Her findings suggest that the more negative a girl feels about her appearance and fitness levels, the less likely she is to enjoy, and remain enrolled in, her sport or physical activity.

Sabiston's study began in summer 2014 and has followed over 300 girls between 14 and 18 years of age throughout two seasons of sport participation. This study is the first to explore a wide range of body-related emotions. To date, most analysis of girls and sport has focused on simply whether or not girls were satisfied with their experiences or examined negative moods connected to body image.

During just the first phase of the study, six percent of the girls dropped out. "Self-consciousness related to the body is one of the key reasons why girls drop-out of sport during adolescence as their bodies are changing," Sabiston explains. Girls in her study reported that they felt growing shame and guilt, in particular when they compared their bodies to those of their peers.

This self-criticism often leads to distorted views of their bodies. In Sabiston's study, 24 percent of the girls reported that they thought they were overweight. In reality, only three percent were. Sabiston says that these negative emotions likely influence the girls' confidence in their ability to play well. Forty percent reported that they were worried that they would perform badly and 27 percent said they felt anxious about

sport in general. The good news is that 70 percent of the girls said they thought they played well and 64 percent were proud of their fitness accomplishments.

Sabiston says that focusing on and encouraging these positive emotions can help to thwart the drop-out trend. She also suggests giving girls a choice of uniform style to help build confidence. "There can be small but important modifications to uniforms that could make more girls feel more comfortable," she explains. It's also important to discourage girls from comparing one another's performances and physicality. Together, these types of efforts could create a more supportive environment for girls and allow them to reap the benefits of sport participation, both physical and mental.

From her other related research, Sabiston has found that team sport participation is particularly beneficial for mental health, including body image. "Depression and anxiety outcomes are lower and general mental health is higher when adolescents are involved in sport, team sport in particular."

Research also finds that if girls form these positive relationships with sport early on, they are more likely to continue an active lifestyle into adulthood. "It starts as early as 10 years old. We need to help more at that level, as girls are going through body transitions. We often say that participating in sport is also a coping strategy for all of these physical changes," Sabiston points out. But if the girls are too self-conscious to play, they will never reap those benefits. "It's an unfortunate cycle."

Published in *Pursuit* Spring 2016 by Valerie Iancovich



‘Sweat is the best antidepressant’

U of T opens Mental Health and Physical Activity Research Centre

In any given year, one in five Canadian adults will experience a mental illness or addiction, according to the Centre for Addiction and Mental Health. To deal with this urgent issue, the Faculty has launched the Mental Health and Physical Activity Research Centre (MPARC), one of the first research facilities in the world to integrate the study of physical activity and mental health.

Opened in February at U of T’s Athletic Centre, this multidisciplinary centre will address the enormous burden of mental health issues.

“Research shows that mental health is a serious issue on campus and in the community,” says Associate Professor Catherine Sabiston, one of the centre’s researchers. “We’re committed to reducing mental health challenges by promoting physical activity and reducing sedentary behaviour, and providing long-term solutions.”

While physical activity is one of the most effective ways to improve mental health, those dealing with mental health issues are commonly the least physically active.

“The benefits of long-term physical activity are undeniable,” says Assistant Professor Kelly Arbour-Nicotopoulos, also a researcher at the centre. “But the Canadian Physical Activity Guidelines might not be realistic for some people, especially if they have mobility issues. Our programs will meet the needs of diverse populations, including cancer survivors and people with spinal cord injuries.”

To further meet these needs, the team will study how to incorporate sustainable long-term exercise into peoples’ lives outside the lab.

“We want to develop programs that will not only work in the lab, but also translate to the real world,” says Sabiston. “For example, we’re partnering with U of T’s Health and Wellness Centre to help students exercise, set goals, self-monitor and manage stress. We want them to enjoy exercise and make it part of their lives.”

The centre contains seven suites where Professors Sabiston, Arbour-Nicotopoulos and Guy Faulkner will study how exercise can improve quality of life. It features accessible cardiovascular and strength training, psychological assessment, and data collection

and analysis. One of the suites includes space to develop web- and app-based technology for mental health and exercise training.

In the past, the team faced space limitations when collaborating with others, including the Centre for Addiction and Mental Health, Holland Bloorview Kids Rehabilitation Hospital and Princess Margaret Hospital. This facility will now let them closely interact with local and international partners and create comprehensive programs. The centre was made possible by the financial support of the Canada Foundation for Innovation and the Ontario Research Fund.

“Now that we have this state-of-the-art centre, we can do our own cutting-edge research and also contribute to larger multi-site projects,” says Faulkner. “Sweat is the best antidepressant, and MPARC will be a leading research centre, allowing us to discover and share knowledge about how best to get more people, more active, more often.”

Published in *Pursuit* Spring 2016
by Katie Babcock

PHOTO/ARNOLD LAN

Faculty welcomes new professor and pioneer in cancer care

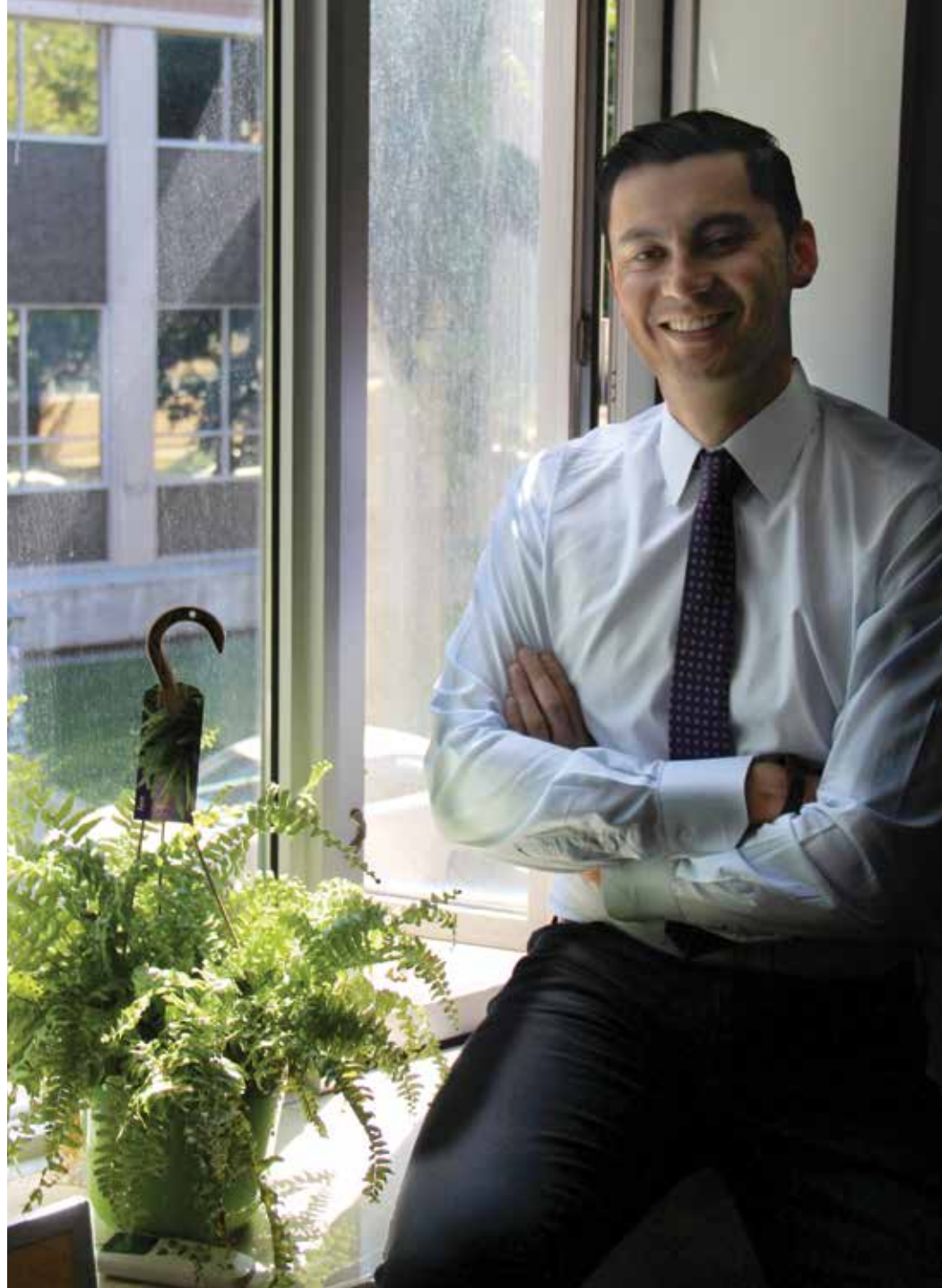
Professor Daniel Santa Mina's commute to his new office at the Athletic Centre involves hopping on his bike and peacefully pedalling along the Lakeshore with the radio playing in his ears. "I feel like I set myself up to clear my mind on the ride," he says. "I feel like I'll be resilient throughout my day because of that time on my bike."

This passion for staying active runs parallel to the field of expertise –physical activity and cancer – that Santa Mina brings to the Faculty in his new role as an assistant professor.

The former head of kinesiology at University of Guelph-Humber has done extensive research at Princess Margaret Cancer Centre on the impact that exercise has on treatment, in particular in patients with prostate cancer. At U of T, Santa Mina will concentrate on expanding his research, play a key role in developing the Faculty's new Master of Professional Kinesiology program and, in 2016, teach a fourth-year course on exercise and cancer survivorship.

Prior to coming to the University, Santa Mina launched a hospital-based exercise program that provides personalized fitness regimes for cancer patients, including "prehabilitation" that reflects patients' overall health and fitness before they begin cancer therapies. "We know when they go through surgery or other treatments, patients will experience a decline in fitness, so this provides a bit of a buffer." In its earliest days, Santa Mina delivered the entire Wellness and Exercise for Cancer Survivors (WE-Can) program on his own. Now, with the program well established at Princess Margaret Cancer Centre, he provides more of a leadership and administrative role.

Since its inception, WE-Can has garnered growing interest from patients hoping to fight their cancer in any and all ways possible. Late NDP leader Jack Layton was an early participant and proponent of the program. A copy of the 2010 Globe and Mail article about their work together is proudly displayed in Santa Mina's office. "Jack played a huge role in everything I've done. It's widely known that Jack



had a battle with prostate cancer," Santa Mina says reflectively. "When he was going through his treatments he was one of our very first participants and then the Globe got wind of the story. As soon as that went into the newspaper, then everyone wanted to know more and that was really the beginning of the survivorship exercise program." This success then led to WE-Can being introduced into all cancer programs across the hospital.

"Jack was the guy who built the awareness. He was a major influence over a short period of time. He definitely had an impact on my career."

In this next phase of his career, Santa Mina wants to continue to explore implementation science. "I think that the gap between our important research findings and the utility

of these findings is too wide. I'd like to figure out how we actualize our findings and make programs accessible to patients." He would also like to see work in his field continue to develop and the awareness about exercise as treatment to become even more widespread. "There is absolutely a level of fear. We are about 30 years behind cardiac rehab," he says. "There was a time when it was a ridiculous thought to take someone who had a heart condition, let alone heart surgery, and tell them to exercise soon after. The same attitudes apply to people with cancer. They can be very, very sick. How dare we expect them to exercise? The real question is, how dare we not?"

**Published in *Pursuit* Fall 2015
by Valerie Iancovich**



How Beyoncé stole the Super Bowl halftime show

It wasn't just Beyoncé's performance that stole the Super Bowl halftime show from Coldplay. It was the political message she delivered, including references to everything from police brutality to standards of beauty.

While many welcomed the act as a rallying cry for social awareness, there were others, like former New York City mayor Rudy Giuliani, who took offence at what he interpreted to be a call for violence against the police.

Assistant Professor Simon Darnell talked to us about the mix of sport and politics and its potential to effect change.

Darnell specializes in social movements and activism in sport, with a particular focus on sport for development and peace.

How well do sports and politics mix?

If the question is, do sports and politics mix? then the answer is a resounding "yes." Governments have long used sport to build consent for their ideologies, their policies or to build prestige domestically or internationally.

I think one only needs to look at the celebratory relationship between sports, nationalism and the military as a recurring example of politics in sport.

At the same time, citizens have often looked to sport as a way to call attention to injustice or the need for social or political change. John Carlos and Tommie Smith and the Black

Power salute at the 1968 Mexico Olympics is probably the most famous example of this (and Beyoncé's performance made reference to it).

By contrast, the question of how well sports and politics mix likely depends on your point of view and your social station. I would say that criticism of "politicizing" sport or the desire to keep sport free of politics is most often levied by those who have the most to gain from maintaining the political status quo.

Is it unusual for a sports event to be used to promote a political agenda?

I don't think it's unusual for sports events to carry a political message or be connected to a political agenda. What is different about this year's Super Bowl is that the NFL and its partners have often been the ones to control the political narrative, and it seems this year that a star of Beyoncé's calibre was able to claim some agency over the message.

Is it a sign of the changing times that Beyoncé can sing about police brutality and Coldplay about marriage equality during the halftime show?

I think it is, to a degree. The 1980s and 90s saw a general lack of political engagement by the world's biggest sports stars. Michael Jordan and Charles Barkley famously separated themselves from politics. But it seems now that we are faced with such significant social and political issues – around issues of race, gender and inequality – that it is increasingly difficult for the world of sport to be insulated from such politics.

Two other issues are significant. One is that corporate spectator sports, particularly the NFL, are bigger than they have ever been in terms of revenue and audiences, which means that they're increasingly going to present an attractive platform for those who wish to start a political discussion or put forth a particular message. Another is that stars and celebrities like Beyoncé and Jay-Z now enjoy a level of power and control that is fairly unprecedented. One could make the argument that the Super Bowl needed Beyoncé more than vice versa. And moguls like Jay-Z now own nearly the entire means of media production and consumption. I would say this gives them an opportunity and a platform to take a political stance that entertainers and athletes have not had before.

What do you think the impact of this performance could be on the viewers, sports event organizers and the authorities?

As for the impact of these kinds of events on audiences and citizens, that is always difficult to assess and even more difficult to measure. I'm sure there are some who are feeling that politics unnecessarily encroached into their football experience at this year's Super Bowl. But I think, and I hope, that the larger message is that movements like Black Lives Matter are not simply reflective of niche politics. Rather, these are the issues of our time and they affect all of us. Being sports fans doesn't afford us a space to ignore them.

Published in *Pursuit* Spring 2016
by Jelena Damjanovic



PLAYING FOR CHANGE

How Bruce Kidd inspired a book

The first time Bruce Kidd attempted to retire, his friends and colleagues organized a symposium to celebrate his achievements as a scholar, athlete and activist. Kidd famously didn't retire, going on to become UTSC's principal, but his colleagues and friends didn't stay idle either. Many of the academic papers given at the symposium were compiled in a book dedicated to Kidd, fittingly called: *Playing for Change - The Continuing Struggle for Sport and Recreation*.

The book was edited by Kidd's former doctoral student Russell Field, who is now assistant professor at the Faculty of Kinesiology and Recreation Management at the University of Manitoba. Yesterday, Field joined Kidd at the launch of the book at Massey College. Celebrating along with them were professor Peter Donnelly of KPE, one of the many contributors to the book, KPE's acting dean Gretchen Kerr and many other colleagues and friends.

Professor Kidd spoke to us about the book, the importance of sports for social change and the role of Universities in promoting opportunities and access to physical activity for all.

How does it feel to have a book dedicated to you?

I'm very honoured by this. I was deeply moved by this project when it began as a conference when I tried to retire a number of years ago and I'm just delighted that it has been brought to fruition. I'm very much appreciative of the efforts of Rosanne Lopers-Sweetman, chief administrative officer at KPE, and Russell Field in particular to bring it to this point.

Why does sport matter so much to so many people around the world?

A measure of why it matters is that it has become the most accessible and most visible form of popular culture today. It gives the individuals who do it extraordinary experiences that touch on every aspect of their being. These experiences can be enjoyable, produce moments of learning and insight, and create bonds or they can

be horrible, but whether they're joyful or horrible, they're meaningful. And secondly, the performances of the best athletes are in most human societies, in particular our own, richly symbolic. They've come to speak for places, groups of people and ideas. We take outstanding athletes to represent countries, universities, genders, sexual orientations. We confer upon athletes enormous symbolic powers.

What role can universities play in the promotion and accessibility of fitness and physical activity opportunities in communities? How is U of T doing in this regard?

As universities, we conduct research, we teach and we're involved in the community. On the basis of research, we advocate for social change. I think on the whole we do that very well. Some of the research in the faculty has contributed both historically and in recent years to making physical activity safer and better understood. The Faculty of Kinesiology and Physical Education has turned out some outstanding graduates, who are doing some tremendous things at all levels of Canadian sport and physical activity. In terms of the co-curricular programs, U of T gives its students rewarding opportunities. I'd like to think we give them habits and knowledge about themselves and physical activity that they can pursue for a lifetime. I also think we have a number of important projects that involve the community, starting with Camp U of T at Junior Blues and other partnerships, so I think U of T does a good job.

What do you think of sport as a platform for human rights issues?

I think both in terms of the symbolic power of sport and the values of sport, sport offers avenues for the promotion of human rights. In modern sport as we know it, the values were always that it was a level playing field and everybody had an equal chance to do well. And of course, in the 19th century and for much of the 20th, and even today, that value was contradicted by the reality that many people were barred from playing either by outright, overt discrimination or by systemic discrimination. That contradiction provided an opportunity for activists and people who were excluded to raise the equity flag. So, sport provided a ready arena for human rights campaigns.

At the same time, given the symbolic power of sport, as representatives of groups that were being discriminated against or underrepresented got a chance to play, some of these outstanding people became the embodied champions of equity: the first outstanding woman, the first outstanding lesbian, the first

outstanding black man, the first outstanding First Nations person. People would say they don't deserve to play and yet you'd see these extraordinary athletes that would excite you and so they symbolically raised the cry of justice.

Probably the strongest narrative to describe the history of sport in my view is the long struggle against barriers. One by one people fought in a complicated variety of ways to break these barriers down across the world within societies. It's an extraordinary story. At every age you had struggles around human rights and equity. And because of the visibility of sport, they've given support to other struggles, too. They've given visibility to the need for human rights.

What did you think of the Pan Am/Parapan Games of this summer?

I think they were a terrific success and a spectacular success for the University of Toronto. In addition to the facilities the university got on the St. George and UTSC campuses, it gave us a chance to really express the broader Olympic ideal. The games brought exciting competition. It gave many of us a chance to learn way more about the Americas than we ever had before and so gave reality to the idea of intercultural education. I think we can be very proud of how we celebrated the Pan Am Games.

What do you think are the values that should inform big sport competitions, like the Pan Am Games or the Olympics? Do you think they've changed since you competed in the 1964 Olympics?

My experience was formed by two ideas. One is the pursuit of the very, very best, the idea of excellence, the idea of being the best you can be and then the best in the world. The other idea was that sport is part of an international culture and that although you compete fiercely against other people, you are culturally at one with them. Olympians should devote themselves to both – to strengthen the opportunity for the pursuit of excellence and to strengthen the opportunity for the whole world to be part of a joined effort to communicate a culture of humanity.

My own experience is that the pendulum in the Olympics has swung to the pursuit of the podium to the neglect of the other values that the Olympic movement holds dear. There continues to be the extraordinary support for the pursuit of excellence, but I think the humanitarian ideal is no longer given the attention it deserves and that really troubles me.

Published online, January 27, 2016 by Jelena Damjanovic

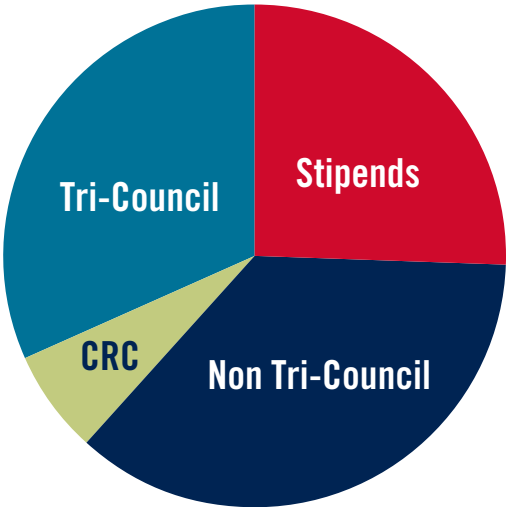
KPE RESEARCH FUNDING AWARDED – 2015-2016

Investigators	Sponsor	Program	Title of Research Project	Awarded
K. Arbour-Nicitopoulos	McMaster University	HRSDC Subgrant	Development, Implementation, and Assessment of the Active Living Peer Mentorship Program for Persons with Physical Disabilities	\$9,010
K. Arbour-Nicitopoulos Co-PI's: K. Martin Ginis	McMaster University	SSHRC Partnership Subgrant	Enhancing Community Participation in Canadians with Physical Disabilities: Development, Implementation and Evaluation of a Partnered Strategy	\$16,755
K. Arbour-Nicitopoulos Co-PI's: G. Faulkner & R. Bassett-Gunter	University of Toronto	Internal KPE Research Grant	The Physical Activity Monitoring (Pam) Study: A Pilot Study Examining the Feasibility and Validity of Community-Based Physical Activity Measurement in Children and Youth with Physical Disabilities	\$3,900
M. Atkinson Co-PI: Caroline Fusco	SSHRC	U of T Excellence Award	Mega-Events and the Consumption of Animal Flesh	\$6,000
T. Beach	Canadian Sport Institute Ontario	Graduate Student Scholarship and Internship	Biomechanical Analysis of Sprint Starts	\$15,000
T. Beach	University of Toronto	Internal KPE Research Grant	Construct Validity Study of the Functional Movement Screen	\$2,500
S. Darnell	Connaught Fund	Operating Grant	Physical and Political Activity? Understanding Elite Athletes as Social and Political Activists	\$9,951
P. Donnelly	SSHRC	U of T Excellence Award	Multiculturalism in the GTA: A Study of Physical Cultural Practices Among Diverse Ethnocultural Populations	\$6,000
P. Donnelly	SSHRC	U of T Excellence Award	Gender Audit of the Pan Am Games	\$6,000
P. Donnelly	University of Toronto	Internal KPE Research Grant	Harassment Officers Concerns about Harassment Policies in National and Provincial Sport Organizations	\$1,220
G. Faulkner Co-PI's: C. Costas-Bradstreet	CIHR	Scholarship	Active Canada 20/20: Evaluating a Population Approach to Reducing Physical Inactivity in Canada	\$179,540
G. Faulkner Co-PI's: K. Arbour-Nicitopoulos & Catherine Sabiston	Canada Foundation for Innovation	Operating Grant	MPARC: Mental Health and Physical Activity Research Centre	\$173,314
G. Faulkner	Canadian Cancer Society Research Institution	Travel Grant	Correlates of Physical Activity Among Kidney Cancer Survivors - Travel Award, Dr. Linda Trinh	\$2,000
G. Faulkner Co-PI's: R. Basset-Gunter, T. Berry, & M. Tremblay	Hospital for Sick Children	Operating Grant	Can the Moblees Move Canadian Kids?	\$24,110
D. Frost Co-PI's: T. Beach	University of Waterloo	Operating Grant	Education-Based Msd Prevention Strategies: The Influence of Work Motivation, Perceived Organizational Support, and Perception of Training Quality on Learning Outcomes	\$9,850
C. Fusco Co-PI: G. Rail	Concordia University	CIHR Subgrant	HPV Vaccination Discourse, Practices and Spaces: Impact on Youths' Bodies and Subjectivities	\$7,000
J. Goodman	CIHR	Doctoral Stream Award	M. Mitchell (Student) - Assessing the Impact of Patient-Oriented Financial Incentives on Motivation, Self Efficacy and Exercise Adherence in a Cardiac Population	\$12,500
J. Goodman	CIHR	Fellowship	L. J. Banks (Student) - Cardiac Consequences of Excessive Exercise	\$55,000
J. Goodman	CIHR	Fellowship	K. D. Currie (Student) - Vascular-Ventricular Coupling: Influences of Age, Sex, and Fitness Level	\$33,333
J. Goodman	CIHR	Operating Grant	Cardiac Consequences on Excessive Exercise	\$99,708
M. Hutchison	Queen's University	Operating Subgrant	Understanding Concussion: From Injury to Return-to-Action	\$99,243
M. Hutchison Co-PI's: C. Sabiston, K. Tamminen, & G. Faulkner	SSHRC	SSHRC Institutional Grant	The Athlete Aging Project: A Comprehensive Investigation of Long-Term Psychological, Social, and Physical Health	\$40,725
M. Hutchison	University of Toronto	Internal KPE Research Grant	The Athlete Aging Project: A Comprehensive Investigation of Long-Term Psychological, Social, and Physical Health	\$4,880
M. MacNeill	CIHR	Doctoral Stream Award	D. Kriger (Student) - The Fat Body: Making Sense of Blame, Shame & Stigma in Public Health	\$35,000

Investigators	Sponsor	Program	Title of Research Project	Awarded
M. MacNeill	CIHR	Travel Award	D. Kriger (Student) - The Best Burger I've Ever Had: Public Health Meets Social Justice	\$1,235
D. Moore	Ajinomoto Co., Inc.	Research Contract	The Impact of Protein Intake on Amino Acid and Protein Metabolism, and Performance During Intensified Training Period	\$98,036
D. Moore	Iovate Health Sciences International Inc.	Research Contract	The Effect of Post-Exercise Protein Supplementation on Whole Body Protein Anabolism and Acute Performance Recovery	\$31,982
D. Moore	MITACS	ACCELERATE Ontario Internship	D. West (Student) - Development of in Vitro Assays for Identification of Novel Natural Products that Enhance Muscle Growth	\$60,000
D. Moore	NSERC	Operating Grant	Mechanisms of Human Skeletal Muscle Remodelling with Exercise	\$29,000
D. Moore	CFI	Infrastructure	High Performance Muscle Metabolism Suite	\$54,249
C. Sabiston	CIHR	Operating Grant	Lifestyle Activity and the Promotion of Emotional Well-Being, Biological Functioning, and Physical Health Among Breast Cancer Survivors Over Time	\$85,184
C. Sabiston	Canada Research Chair	CRC Tier II	Canada Research Chair in Physical Activity and Mental Health	\$100,000
C. Sabiston Co-PI's: J. Vallance, J. Tomasome, E. McGowan, K. Karvinen, J. Jones, G. Faulkner, J. Brunet, & K. Campbell	Canadian Breast Cancer Foundation	Research Contract	Improving Physical Activity and Reducing Sedentary Behaviour Among Breast Cancer Survivors: Moving Research to Practice	\$61,789
C. Sabiston Co-PI's: K. Arbour-Nicitopoulos, K. Tamminen, J. Jones, J. Bender, P. Goodwin, & S. Amireaut	Canadian Cancer Society Research Institution	Operating Grant	Connecting Peers In Motion: A Dyadic Lifestyle Activity Intervention for Women Diagnosed with Cancer	\$23,668
C. Sabiston	SSHRC	SSHRC Institutional Grant	Understanding and Improving Body-Related Self-Conscious Emotion in Adolescent Girls' Sport	\$34,375
C. Sabiston	SSHRC	SIG Award	Positive Psychology Workshop	\$4,800
K. Tamminen Co-PI's: G. Kerr, & P. Donnelly	SSHRC	Partnership Development Grant	Potential for Change? Exploring the Culture of Youth Hockey	\$18,750
K. Tamminen Co-PI's: C. Sabiston, P. Crocker, M. Eys, & B. Smith	SSHRC	Insight Development Grant	Exploring Communal Coping and Collective Emotions in Team Sports	\$29,330
K. Tamminen	SSHRC	SIG Award	Misery Loves Company: Exploring Mixed Martial Artists Experiences of Pain With Teammates and Coaches	\$1,450
K. Tamminen	Trillium Foundation	Operating Grant	Activeassist Program Evaluation	\$13,536
K. Tamminen Co-PI's: C. Sabiston, & E. Page-Gould	University of Toronto	Internal KPE Research Grant	A Longitudinal Analysis of Emotions and Interpersonal Interactions in Team Sports	\$3,700
S. Thomas	CIHR	Doctoral Stream Award	D. Bentley (Student) - Evaluating the Use of Isometric Handgrip Exercise as a Stimulus for Long-Term Blood Pressure Reductions: Is There a Causal Link to Heat Shock Proteins and/or the Autonomic Nervous System?	\$35,000
L. Tremblay	NSERC	Operating Grant	Real-Time Multisensory Utilization During the Different Online Control Phases of Voluntary Actions	\$24,000
M. Atkinson	SSHRC	SIG Award	Symposium: Sport, Sex and the City	\$1,300
G. Wells	MITACS	ACCELERATE Ontario Internship	N. Guest (Student) - Caffeine, Genetic Variation and Athletic Performance	\$45,000
G. Wells	Movember Canada	Men's Health & Wellbeing Innovation Challenge Grant	The Health Oracle App	\$72,800
T. Welsh	MITACS	Globalink Research Award	M. Sunny (Student) - Effect of Action-Effect Association on Modulation of Attentional Capture in Aiming Movements	\$5,000
T. Welsh	NSERC	Operating Grant	The Processing of Non-Human Animal Bodies and Point of Gaze	\$28,000
T. Welsh Co-PI: C. Sabiston	University of Toronto	Internal KPE Research Grant	Beauty is In the Eye (and Body and Brain) of the Beholder: Identifying and Testing Predisposing Body Image Factors that Shape Media Consumption	\$3,800

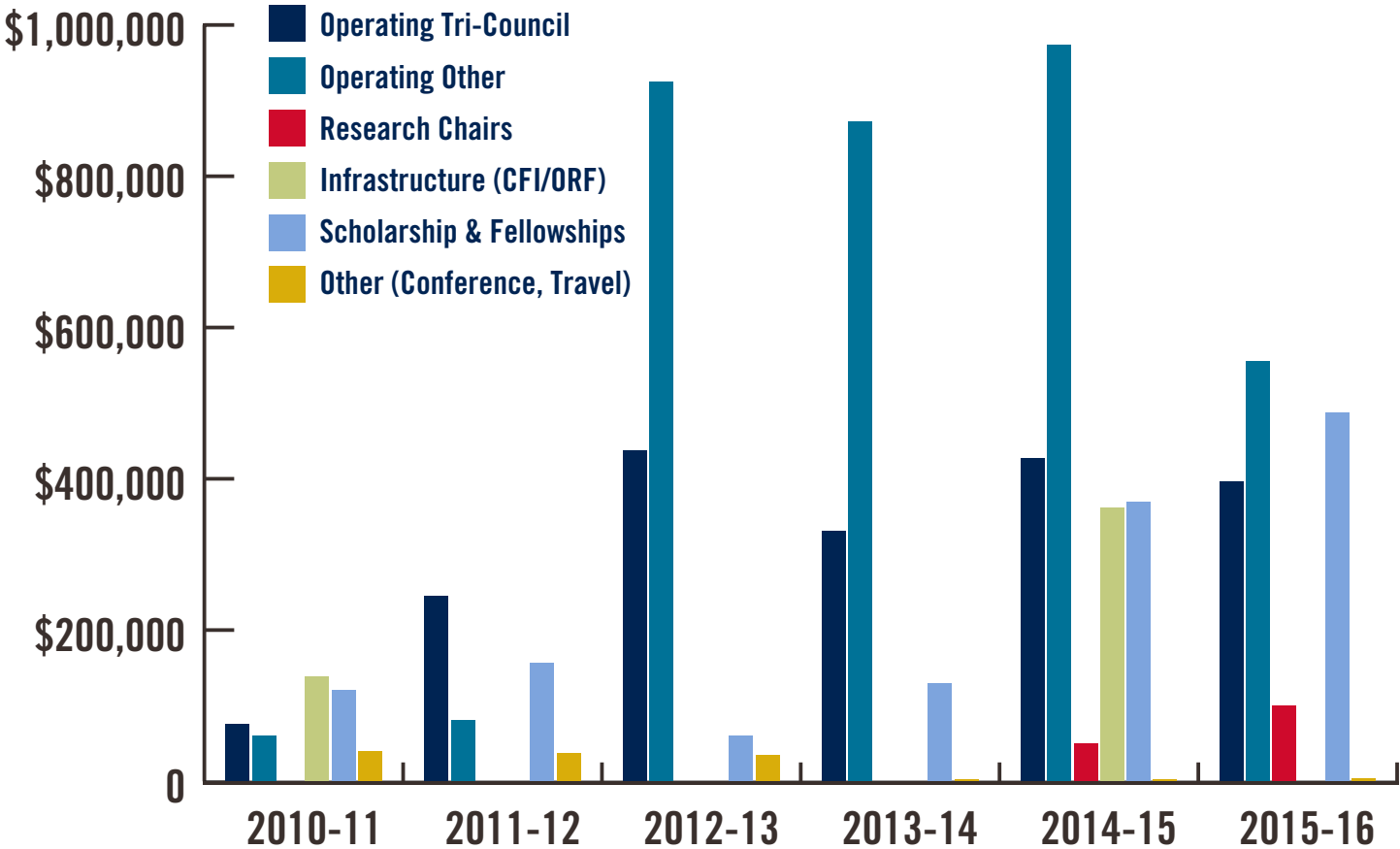
Source: RIS Award report by Sponsor, April 1, 2015 to March 31, 2016, RIS data as April 22, 2016, Faculty of Kinesiology & Physical Education
Co-PI=Co-applicants and/or Collaborators

2015-2016 Sources of Funding



Non Tri-Council	\$556,026.22
Stipends	\$487,373.00
Tri-Council	\$396,621.73
CRC	\$100,000.00
Total	\$1,543,501.92

Operation Funding by Year Awarded



Source: RIS Award reports by Sponsor, April 1, 2015 to March 31, 2016. The RIS data was gathered on April 22, 2016.

PUBLICATIONS (2015-2016)

sorted alphabetically by first listed KPE faculty member

Books (6)

Alexander, S. A., Frohlich, K. L. & Fusco, C. (in press). *Playing for Public Health: The Promotion of Play as Physical Activity and The Reframing of Children's Leisure Lives. Studies in Physical Education and Youth Sport*. London, UK: Routledge.

Kowalski, K., McHugh, T., Sabiston, C. M. & Ferguson, L. (in press). *Qualitative, Quantitative, and Mixed Methods textbook in Kinesiology*. Oxford, UK: Oxford University Press.

Bouhleb, E. & Shephard, R. J. (2015). *Optimizing Physical Performance During Fasting and Dietary Restriction: Implications for Athletes and Sports Medicine*. Boca Raton, FL: CRC Press.

Shephard, R. J. & Tudor-Locke, C. (2015). *The Objective Monitoring of Physical Activity: Contributions of Accelerometry to Epidemiology, Exercise Science and Rehabilitation*. New York: Springer.

Stirling, A. & Kerr, G. (2016). *Advancing Women in Coaching. Mentee and Mentor Workbooks*. Ottawa, ON: Coaching Association of Canada/Status of Women Canada/Canadian Association for the Advancement of Women and Sport and Physical Activity.

Stirling, A., Kerr, G., Banwell, J., MacPherson, E. & Heron, A. (2016). *A Practical Guide for Work-Integrated Learning: Effective Practices to Enhance the Educational Quality of the Structured Work Experience Offered Through Colleges and Universities*. Toronto, ON: Higher Education Quality Council of Ontario/ Education @ Work Ontario.

Book Chapters (27)

Atkinson, M. (in press). Norbert Elias, the Body and the Rediscovery of the Hinge. In J. Haut (Ed.), *Excitement Processes - Sports, Leisure, Body, and Culture in the Works of Norbert Elias*. New York, NY: Springer.

Atkinson, M. (in press). Ethnoaesthesia: Ashtanga Yoga and the Sensuality of Sweat. In A. Sparkes (Ed.), *Seeking the Senses*. London, UK: Routledge.

Atkinson, M. (2016). Researching Sport. In R. Giuliannotti (Ed.), *Routledge Handbook of the Sociology of Sport*. London, UK: Routledge.

Atkinson, M. (2015). The Loneliness of the Fell Runner: An Ethnographic Foray. In G. Molnar & L. Purdy (Eds.), *Ethnographies in Sport and Exercise Research*. London, UK: Routledge.

Darnell, S. C. (in press). International Development & Policy. In D. Andrews, M. Silk, & H. Thorpe (Eds.), *The Routledge Handbook of Physical Cultural Studies*. London, UK: Routledge.

Darnell, S. C. & Marchesseault, D. (2016). Sport for Development and Peace. In R. Hoye, & M. Parent (Eds.), *Sage Handbook of Sport Management*. New York, NY: Sage.

Giulianotti, R. & Darnell, S. C. (2016). Sport for Development and Peace. In B. Houlihan & D. Malcolm (Eds.), *Sport and Society: A Student Introduction (3rd Edition)*. New York, NY: Sage.

Donnelly, P. & Kidd, B. (2015). Two solitudes: grass roots sport and high performance sport in Canada. In R. Bailey & M. Talbot (Eds.), *Elite Sport and Sport For All: Bridging the Two Cultures*. London, UK: Routledge.

Faulkner, G. & Tamminen, K.A. (2016). Youth Sport and Mental Health. In A. Smith & K. Green (Eds.), *Routledge Handbook of Youth Sport*. New York, NY: Routledge.

Fusco, C. (2016). (in press). Healthified Spaces. In D. Andrews, M. Silk, & H. Thorpe (Eds.), *Routledge Handbook of Physical Cultural Studies*. Oxford, UK: Taylor & Francis Books.

Kerr, G. & Stirling, A. (in press). Issues of Maltreatment in High Performance Athlete Development: Mental Toughness as a Threat to Athlete Welfare. In J. Baker (Ed.), *The Handbook of Talent Identification and Development in Sport*. London, UK: Routledge/Taylor and Francis.

Kerr, G., Stirling, A. & MacPherson, E. (2016). Psychological Injury in Pediatric and Adolescent Sports. In D. Caine & L. Purcell (Eds.), *Injury in Pediatric and Adolescent Sports. Epidemiology, Treatment and Prevention*. New York, NY: Springer.

Kidd, B. (2016). "The Army's Presence Will Be Obvious": Montreal 1976. In V. Bajc (Ed.), *Surveilling and Securing the Olympics: From Tokyo 1964 to London 2012 and Beyond*. New York, NY: Palgrave MacMillan.

Kidd, B. (in press). Biographies on 'Lawrence Solman', 'Francis Nelson' and 'Jacob Gaudaur', in *Dictionary of Canadian Biography* (Vol. XVI), Toronto, ON: University of Toronto Press.

Moore, D. R. (2015) Phenylalanine. In L. M. Castell, S. J. Stear, & L. M. Burke (Eds.), *Nutritional Supplements in Sport, Exercise, and Health: An A-Z guide*. Oxford, UK: Taylor & Francis Books.

Moore, D. R., Phillips, S. M. & Slater, G. L. (2015). Protein. In L. Burke & V. Deakin (Eds.), *Clinical Sports Nutrition. 5th Edition*. North Ryde, Australia: McGraw-Hill Education.

Leunkeu, A. & Shephard, R. J. (2016). Optimizing Rehabilitation: Assessing Cardiorespiratory, Neuromuscular and Biomechanical Adaptations to Exercise in Children with cerebral palsy. In M. K. Gunel (Ed.), *Cerebral Palsy*. Rijeka, Croatia: Intech Publications.

Shephard, R. J. (in press). Corporate Wellness. In C. Jackson, J. B. Moore & W. Repoivich. (Eds.), *ACSM's Sports Medicine Basics*. Alphen aan Den Rijn, Netherlands: Wolters Kluwer.

PUBLICATIONS (2015-2016) CONT'D

Raso, V. & **Shephard, R. J.** (2015). Measures of Physical Function in the Management of Individuals Living with Hiv/Aids. In R. R. Watson (Ed.), *Food, Nutrition and Lifestyle In Health of Hiv Infected People Volume Ii*. Philadelphia, Pa: Elsevier.

Shephard, R. J. (2015). Maintaining Fluid Balance During Ramadan Observance. In H. Chtourou (Ed.), *Effects of Ramadan Fasting on Health and Athletic Performance*. New York, NY: Omics Group Incorporation.

Tamminen, K. A. & Crocker, P. R. E. (in press). Main Concepts of Emotion Regulation in Sport: From Defense Mechanisms to Interpersonal Emotion Regulation. In M. Campo & B. Louvet (Eds.), *Les émotions en sport et en EPS - Enseignement, performance et santé*. Oxford, UK: Oxford University Press/DeBoeck.

Tamminen, K. A. & Neely, K. C. (2016). Positive Growth in Sport. In N. L. Holt (Ed.), *Positive Youth Development Through Sport (2nd Edition)*. London, UK: Routledge.

Martin-Krumm, C., **Tamminen, K. A.**, Oger, M., & Fredrickson, B. (in press). Les Émotions, Frein ou Levier pour les Apprentissages En Eps? In M. Campo & B. Louvet (Eds.), *Les Émotions en Sport et en Eps - Enseignement, Performance Et Santé*. Oxford, UK: Oxford University Press.

Wells, G. D. (2015). Energy for Muscular Activity. In P. Klavara (Ed.), *Introduction to Kinesiology Studying Human Movement and Health (3rd Edition)*. Toronto, Canada: Kinesiology Books Publisher.

Wells, G. D. (2015). Muscle Structure and Function. In P. Klavara (Ed.), *Introduction to Kinesiology Studying Human Movement and Health. (3rd Edition)*. Toronto, Canada: Kinesiology Books Publisher.

Wells, G. D. (2015). Muscles at Work. In P. Klavara (Ed.), *Introduction to Kinesiology Studying Human Movement and Health. (3rd Edition)*. Toronto, Canada: Kinesiology Books Publisher.

Wells, G. D. (2015). The Heart and Lungs at Work. In P. Klavara (Ed.), *Introduction to Kinesiology Studying Human Movement and Health. (3rd Edition)*. Toronto, Canada: Kinesiology Books Publisher.

Peer-Reviewed Articles (128)

Atkinson, M. & Gibson, K. (in press). Beyond Boundaries: The Development and Potential of Ethnography in the Study of Sport and Physical Culture. *Cultural Studies*.

Shirazipour, C. H., Latimer-Cheung, A. E. & **Arbour-Nicitopoulos, K. P.** (2015). An Exploratory Qualitative Investigation of Psychosocial Determinants of Parental Decisions to Support Sport Participation for Youth with a Mobility Impairment. *Research in Developmental Disabilities, 45-46*, 400-410.

Subramaniapillai, M., Goldstein, B., MacIntosh, B., Korczak, D., Ou, T., Scavone, A., **Arbour-Nicitopoulos, K.** & **Faulkner, G.** (2016). Characterizing Exercise-Induced Feelings After One Bout of Exercise Among Adolescents with and without bipolar disorder. *Journal of Affective Disorders, 190*, 467-473.

Musalem, L. L., Stankovic, T., Glisic, D., Cook, G. E. & **Beach, T. A. C.** (2015). Biomechanical and Electromyographic Comparison of Isometric Trunk Flexor Endurance Test Postures: Prone "Plank" vs. "V-sit". *Journal of Applied Biomechanics, 31(6)*, 469-475.

Darnell, S. C., Chawansky, M., Marchesseault, D., Holmes, M. & Hayhurst, L. (in press). The State of Play: Critical Sociological Insights into recent 'Sport for Development and Peace' research. *International Review for the Sociology of Sport*.

Donnelly, P. (2016). Power, Politics, and the Olympic Games: Vancouver 2010 and Other Cases. *Japanese Journal of Sport Sociology, 24(1)*, 1-21.

Carson, V., **Faulkner, G.**, **Sabiston, C. M.**, Tremblay, M. & Leatherdale, S. (2015). Patterns of Movement Behaviors and Their Association with Overweight and Obesity in Youth. *International Journal of Public Health, 60*, 551-559.

Duncan, M. J., **Faulkner, G.**, Remington, G., & **Arbour-Nicitopoulos, K.** (2016). Characterizing the Affective Responses to an Acute Bout of Moderate-Intensity Exercise Among Outpatients with Schizophrenia. *Psychiatry Research, 237*, 264-70.

White, L., Volfson, Z., **Faulkner, G. E.** & **Arbour-Nicitopoulos, K. P.** (in press). Reliability and Validity of Physical Activity Instruments Used in Children and Youth with Physical Disabilities: A Systematic Review. *Pediatric Exercise Sciences*.

Frost, D. M., **Beach, T. A. C.**, Crosby, I. & McGill, S. M. (in press). The Cost and Distribution of Firefighter Injuries in a Large Canadian Fire Department. *Work*.

Frost, D. M., Bronson, S., Cronin, J. B. & Newton, R. U. (2016). Changes in Maximal Strength, Velocity and Power Following Eight Weeks of Training with Pneumatic or Free Weight Resistance. *Journal of Strength and Conditioning Research, 30(4)*, 934-944.

Frost, D. M., **Beach, T. A. C.**, Callaghan, J. P. & McGill, S. M. (2015). The Influence of Load and Speed on Individuals' Movement Behavior. *Journal of Strength and Conditioning Research, 29(9)*, 2417-2425.

Frost, D. M., **Beach, T. A. C.**, Callaghan, J. P. & McGill, S. M. (2015). FMS™ Scores Change with Performers' Knowledge of Grading Criteria – Are General Whole-Body Movement Screens Capturing "Dysfunction"? *Journal of Strength and Conditioning Research, 29(11)*, 3037-3044.

McGill, S. M., **Frost, D. M.**, Lam, T., Finlay, T., Darby, K. & Cannon, J. (2015). Can Fitness and Movement Quality Prevent Back Injury in Elite Task Force Police Officers? A 5-Year Longitudinal Study. *Ergonomics, 58(10)*, 1682-1689.

Fusco, C. & McKeever, P. (2015). Cujó's Crease: Deconstructing the Haunting Trompe-L'œil of a Cancer Treatment Room in a Children's Hospital. *Cultural Studies=>Critical Methodologies, 15*, 337-349.

Goodman, J., Banks, L., **Thomas, S.** & Burr, J. (2016). The Acute Risks of Exercise in Apparently Healthy Adults and Relevance for Prevention of Cardiovascular Events. *Canadian Journal of Cardiology, 32(4)*, 523-532.

O'Donnell, E., **Goodman, J. M.**, Morris, B., Floras, J. F. & Harvey, P. (2015). Augmented Vagal Heart Rate Modulation in Active Hypoestrogenic Premenopausal Women with Functional Hypothalamic Amenorrhea. *Clinical Science, 129(10)*, 885-893.

Wright, S., Granton, J. T., Esfandiari, S., **Goodman, J.** & Mak, S. (In Press). The Relationship of Pulmonary Vascular Resistance and Compliance to Pulmonary Artery Wedge Pressure During Submaximal Exercise in Healthy Older Adults. *Journal Of Physiology*.

- Wright, S., Mak, S., Gray, T., Sasson, Z., Chelvanathan, A., Esfandiari, S., Fuchs, P. & **Goodman, J. M.** (2015). Left Atrial Phasic Function Interacts to Support Left Ventricular Filling During Exercise in Healthy Athletes. *Journal Of Applied Physiology*, 119(4), 328-33.
- Wright, S., Sasson, Z., Granton, J., Chelvanathan, A., Esfandiari, S., Fuchs, P., **Goodman, J.** & Mak, S. (in press). The Pulmonary Artery Wedge Pressure Response to Submaximal Exercise is Time-Variant in Healthy, Older Adults. *Heart*.
- Bruce, J., Echemendia, R., Tangeman, L., Meeuwisse, W., Comper, P., **Hutchison, M. G.**, et al. (2016). Two Baselines are Better than One: Improving the Reliability of Computerized Testing in Sports Neuropsychology. *Applied Neuropsychology Adult*, 1-7.
- Di Battista, A. P., Rizoli, S. B., Lejniaks, B., Min, A., Baker, A., **Hutchison, M. G.**, et al. (in press). Sympathoadrenal Activation is Associated with Acute Traumatic Coagulopathy and Endotheliopathy in Isolated Brain Injury. *Shock*.
- Di Battista, A. P., Rhind, S. G., **Hutchison, M. G.**, Hassan, S., Shiu, M. Y., Inaba, K., Et Al. (2016). Inflammatory Cytokine and Chemokine Profiles are Associated with Patient Outcome and the Hyperadrenergic State Following Acute Brain Injury. *Journal Of Neuroinflammation*, 13, 40.
- Echemendia, R., Bruce, J., Meeuwisse, W., Comper, P., Aubry, M. & **Hutchison, M. G.** (2016). Long-term Reliability of Impact in Professional Ice Hockey. *Clinical Neuropsychologist*, 30(2), 311-20.
- Hutchison, M. G.**, Mainwaring, L., Senthinathan, A., Churchill, N., **Thomas, S.** & Richards, D. (in press). Psychological and Physiological Markers of Stress in Concussed Athletes Across Recovery Milestones. *Journal Of Head Trauma and Rehabilitation*.
- Lawrence, D. W., Comper, P. & **Hutchison, M. G.** (2016). Influence of Extrinsic Risk Factors on National Football League Injury Rates. *Orthopaedic Journal of Sports Medicine*, 4(3). Doi:10.1177/2325967116639222
- Kerr, G.**, Jewett, R., MacPherson, E., & **Stirling, A.** (in press). Student-Athletes' Experiences of Bullying on Intercollegiate Teams. *Journal for The Study of Sports and Athletes in Education*.
- Kerr, G.**, **Stirling, A.** & Bandealy, A. (2016). Film depictions of Emotionally Abusive Coach-Athlete Interactions. *Sport Coaching Review*, 1-15.
- Kerr, G. A.**, **Stirling, A. E.**, Heron, A., MacPherson, E. A. & Banwell, J. M. (2015). The Importance of Touch: Athletes' and Coaches' Reflections. *International Journal of Social Science Studies*, 3(4), 56-68.
- Macpherson, E., **Kerr, G.** & **Stirling, A.** (2016). The Influence of Peer Groups in Organized Sport on Female Adolescents' Identity Development. *Psychology Of Sport & Exercise*, 23, 73-81.
- Field, R. & **Kidd, B.** (2016). Canada and the Pan American Games. *International Journal of History of Sport*, 33(1-2), 217-239.
- Kidd, B.** & Torres, C. (2016). Historicizing the Pan American Games. *International Journal of History of Sport*, 33(1-2), 1-5.
- Senthinathan, A., **Mainwaring, L.** & **Hutchison, M.** (in press). Heart Rate Variability of Athletes Across Concussion Recovery Milestones: A Preliminary Study. *Clinical Journal of Sport Medicine*.
- Devries M. C., Breen L., Von Allmen, M., MacDonald, M. J., **Moore, D. R.**, Offord, E., Horcajada, M. N., Breuille, D. & Phillips, S. M. (2015). Low-load Resistance Training During Step-reduction Attenuates Declines in Muscle Mass and Strength and Enhances Anabolic Sensitivity in Older Men. *Physiological Reports*, 3(8), E12493.
- Moore, D. R.** (2015). Nutrition to Support Recovery from Endurance Exercise: Optimal Carbohydrate and Protein Replacement. *Current Sports Medicine Reports*, 14(4), 294-300.
- Smiles, W. J., Areta, J. L., Coffey, V. G., Phillips, S. M., **Moore, D. R.**, Stellingwerff, T., Burke, L. M., Hawley, J. A. & Camera, D. M. (in press). Modulation of Autophagy Signaling with Resistance Exercise and Protein Ingestion Following Short-Term Energy Deficit. *American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology*.
- Volterman, K. A., **Moore, D. R.**, Obeid, J., Grathwohl, D. & Timmons, B. W. (2015). The Effect of Post-Exercise Milk Protein Intake on Rehydration of Children. *Pediatric Exercise Science*. Doi:10.1123/pes.2015-0078
- Amireault, S., Godin, G., Lacombe, J., & **Sabiston, C. M.** (2015). The Use of the Godin-Shephard Leisure-Time Physical Activity Questionnaire in Oncology Research: A Systematic Review. *BMC Medical Research Methodology*, 15, 60. Doi:10.1186/s12874-015-0045-7
- Belanger, M., **Sabiston, C. M.**, Barnett, T. A., O'Loughlin, E., Ward, S., Contreras, G. & O'Loughlin, J. (2015). Number of Years of Participation in Some, but not All, Types of Physical Activity During Adolescence Predicts Level of Physical Activity in Adulthood: Results From a 13-Year Study. *International Journal of Behavioral Nutrition and Physical Activity*, 12, 76.
- Coroiu, A., Koerner, A., Burke, S., Meterissian, S., & **Sabiston, C. M.** (in press). Stress and Post-traumatic Growth Among Breast Cancer Survivors: A Test of Linear and Curvilinear Effects. *International Journal of Stress Management*.
- Fong, A. J., Scarapicchia, T. M. F., McDonough, M. H., Wrosch, C., O'Loughlin, J. & **Sabiston, C. M.** (in press). Changes in Social Support Quantity and Quality Differentially Predict Changes in Emotional Well-Being Among Recently Treated Breast Cancer Survivors. *Psycho-Oncology*.
- Garcia Bengoecea, E., **Sabiston, C. M.** & Wilson, P. (2016). Assessing Practice-based Influences on Adolescent Psychosocial Development in Sport: The Activity Context in Youth Sport Questionnaire. *Journal of Sport Sciences*, 4, 1-9.
- Goguen-Carpenter, J., **Sabiston, C. M.**, O'Loughlin, J. L. & Belanger, M. (in press). Association between Physical Activity Goals and Types of Physical Activities in Children. *International Journal of Sport and Exercise Psychology*.
- Pila, E., Brunet, J., Crocker, P., Kowlaski, K. & **Sabiston, C. M.** (in press). Intrapersonal Characteristics of Body-Related Self-Conscious Emotion Experiences. *International Journal of Body Image*.
- Scarapicchia, T., **Sabiston, C. M.**, Amireault, S. & **Faulkner, G.** (in press). A Systematic Review of the Longitudinal Association Between Social Support and Physical Activity in Adults. *International Review of Sport and Exercise Psychology*.

PUBLICATIONS (2015-2016) CONT'D

- Scarapicchia, T., **Sabiston, C. M. & Faulkner, G.** (2015). Understanding Health Behaviour Guidelines Among University Students: Examining Correlates of Attaining Health Behaviour Guidelines. *Canadian Journal of Public Health, 106*(3), e109-14.
- Sabiston, C. M.**, Jewett, R., Ashdown-Franks, G., Brunet, J., Belanger, M., O'Loughlin, E. & O'Loughlin, J. (in press). Number of Years of Team Sport Participation During Adolescence and Depression in Adulthood. *Journal of Sport & Exercise Psychology*.
- Gupta, A. A., Mitchell, L., Jones, J., Amin, L., Papadakos, J., Chang, E., Korenblum, C., **Santa Mina, D.**, McCabe, L. & Giuliani, M. (in press). Re-imagining Care for AYA Cancer Programs: Moving With the Times. *Cancer*.
- Katz, J., Weinrib, A., Fashler, S.R., Katznelzon, R., Shah, B. R., Ladak, S., Jiang, J., Li, Q., McMillan, K., **Santa Mina, D.**, Wendtlandt, K. et al. (2015). The Transitional Pain Service: Development and Implementation of a Multidisciplinary Program to Prevent Chronic Postsurgical Pain. *Journal of Pain Research, 8*, 695-702.
- Santa Mina, D.**, Petrella, A., Currie, K. L., Bietola, K., Alibhai, S. M. H., Trachtenberg, J., Ritvo, P. & Matthew, A. G. (in press). Enablers and Barriers in Cancer Exercise Program Delivery: The Canadian Experience. *Current Oncology*.
- Santa Mina, D.**, Au, D., Alibhai, S. M. H., Jamnicky, L., Faghani, N., Hilton, W., Stefanyk, L. E., Ritvo, P., Jones, J., Elterman, D., Fleshner, N. E., Finelli, A., Singal, R. K., Trachtenberg, J. & Matthew, A. G. (2015). A Randomized Pilot Trial of Conventional Versus Advanced Pelvic Floor Exercises to Treat Urinary Incontinence After Radical Prostatectomy: A Study Protocol. *BMC Urology, 15*(94), 1-10.
- Aloui, A., Chtourou, H., Briki, W., Tabben, M., Chaouachi, A., Souissi, N., Chamari, K. & **Shephard, R. J.** (in press). "Making Weight" in the Context of Ramadan Observance; Recommendations for Judokas. *Biology of Sport*.
- Ayabe, M., Park, S., **Shephard, R. J.** & Aoyagi, Y. (2015). Associations of Activity Monitor Output and an Estimate of Aerobic Fitness With Pulse Wave Velocities: The Nakanojo Study. *Journal of Physical Activity and Health, 12*(1), 139-144.
- Bouhlel, H., Bogdanis, G. C., Hamila, A., Milad, A., Chewly, S., Denguezeli, M., Khouaja, I., **Shephard, R. J.**, Tabka, Z. & Bouhlel, E. (in press). Effects of Ramadan Observance on Repeated Cycle Ergometer Sprinting and Associated Inflammatory and Oxidative Stress Responses in Trained Young Men. *Journal of Fasting Health*.
- Chelly, S., Hermassi, S. & **Shephard, R. J.** (2015). Effects of In-Season Short-Term Plyometric Training Program on Sprint and Jump Performance of Young Male Track Athletes. *Journal of Strength and Conditioning Research, 29*(8), 2128-2136.
- Hammami, M., Negra, Y., Chaabène, H., Mkaouer, B., Aouadi, R., Hachana, Y., **Shephard, R. J.** & Chelly, M. S. (in press). Effects of an In-Season Plyometric Training Program on Repeated Change of Direction and Sprint Performance in the Junior Soccer Player. *Journal of Strength and Conditioning Research*.
- Hammami, M., Negra, Y., Mkaouer, B., Aouadi, R., **Shephard, R. J.** & Chelly, S. (in press). Effects of an In-Season Plyometric Training Program on Repeated Change of Direction and Sprint Performance in the Junior Soccer Player. *Journal of Strength and Conditioning Research*.
- Hermassi, S., Aouadi, R., Khalifa, R., van den Tillaar, R., **Shephard, R. J.** & Chelly M. S. (2015). Relationships Between the Yo-Yo Intermittent Recovery Test and Anaerobic Performance Tests In Adolescent Handball Players. *Journal of Human Kinetics, 45*, 197-205.
- Kawakami, H., Park, H., Park, S., Kuwata, H., **Shephard, R. J.** & Aoyagi, Y. (2015). Effects of Enteric-Coated Lactoferrin Supplementation On the Immune Function of Elderly Individuals: A Randomized, Double-Blind, Placebo-Controlled Trial. *International Dairy Journal, 47*, 79-85.
- Larouche, R., Laurencelle, L., **Shephard, R. J.** & Trudeau, F. (2015). Daily Physical Education in Primary School and Physical Activity in Midlife: The Trois-Rivières Study. *Journal of Sports Medicine and Physical Fitness, 55*(5), 527-534.
- Larouche, R., Laurencelle, L., **Shephard, R. J.** & Trudeau, F. (2015). Should the Curricular Time Allocated to School Physical Education be Increased? Insights From Participants in a Follow-Up of the Trois-Rivières Study. *Physical Educator, 72*, 701-720.
- Rostrami, S., **Shephard, R. J.** & Rajaeian, B. (in press). Effect of Combined Resistive-Endurance Exercises on Myocardial Tissue Creatine Kinase Isoenzyme (CK-MB), IL-6 and IL-10 in Male Patients Following Cardiac Surgery. *Health & Fitness Journal of Canada*.
- Schwesig, R., Hermassi, S., Fieseler, G., Hoffmeyer, B., Irlenbusch, L., Noack, E., Delank, K-S., **Shephard, R. J.** & Chelly, M. S. (in press). Anthropometric and Physical Performance Characteristics of Professional Handball Players: Influence of Playing Position and Competitive Level. *Journal of Sports Medicine & Physical Fitness*.
- Shephard, R. J.** (in press). Cancers of the Oesophagus and Stomach: Potential Mechanisms Behind the Beneficial Influence of Physical Activity. *Clinical Journal of Sport Medicine*.
- Shephard, R. J.** (in press). ECG Screening to Prevent Sudden Cardiac Death on the Sports Field: Is There Now Evidence Supporting Such Practice? *Health & Fitness Journal of Canada*.
- Shephard, R. J.** (in press). Exercise and the Athlete with Infectious Mononucleosis. *Clinical Journal of Sports Medicine*.
- Shephard, R. J.** (in press). Frailty, Pathophysiology, Phenotype and Patient Care. Book Review. *Applied Physiology, Metabolism, and Nutrition*.
- Shephard, R. J.** (in press). Oxidative Stress and Exercise: Implications for the Athlete Observing Ramadan. *Clinical Journal of Sports Medicine*.

- Shephard, R. J.** (in press). Peptic Ulcer and Exercise. *Sports Medicine*.
- Shephard, R. J.** (in press). Physical Activity and Gastro-Oesophageal Reflux. *Health & Fitness Journal of Canada*.
- Shephard, R. J.** (in press). Regulating Exercise Intensity When Heart-Rate Based Prescription is Compromised. *Health & Fitness Journal of Canada*.
- Shephard, R. J.** (in press). Sickle Cell Trait: What are the Costs and Benefits of Screening? *Journal of Sports Medicine and Physical Fitness*.
- Shephard, R. J.** (in press). The Endurance Athlete's "Stitch": Etiology and Management of Exercise-Related Transient Abdominal Pain. *Health & Fitness Journal of Canada*.
- Shephard, R. J.** (in press). Exercise in the Prevention and Treatment of Colorectal Neoplasms: Effects and Mechanisms. *Health & Fitness Journal of Canada*.
- Shephard, R. J.,** Park, H., Park, S. & Aoyagi, Y. (in press). Objectively Measured Physical Activity and Calcaneal Bone Health in Older Japanese Adults: Dose/Response Relationships in Longitudinal Data from the Nakanojo Study. *Journal of American Geriatric Sociology*.
- Shephard, R. J.** (2016). Sports Participation and the Solitary Kidney, with Particular Reference To The Child Athlete. *International Journal of Sport Science*, 27, 124-136.
- Shephard, R. J.** (2016). The Case for Increased Physical Activity in Chronic Inflammatory Bowel Disease: A Brief Review. *International Journal of Sport Science*, 37, 1-11.
- Shephard, R. J.** (2015). Exercise Proteinuria and Haematuria: Current Knowledge and Future Directions. *Journal of Sports Medicine & Physical Fitness*. (PMID:25854772).
- Shephard, R. J.** (2015). A Polar Bear Swim, Anyone? Risks and Counter-Measures. *Health & Fitness Journal of Canada*, 8(1), 14-21.
- Shephard, R. J.** (2015). Diabetes and Physical Activity, by J. H. Goedecke and E. O. Ojuka. Book Review. *Applied Physiology and Nutrition and Metabolism*, 40(1), 103.
- Shephard, R. J.** (2015). How Fast Can You Trot? Vigorous Exercise and Diarrhea. *Health & Fitness Journal of Canada*, 8(1), 32-52.
- Shephard, R. J.** (2015). Occult Bleeding, Haematochezia and the Endurance Athlete: What are the Risks? *Health & Fitness Journal of Canada*, 8(1), 22-32.
- Shephard, R. J.** (2015). Physical Activity and the Biliary Tract in Health and Disease. *Sports Medicine*, 45(9), 1295-1309.
- Shephard, R. J.** (2015). Physical Impairment in Hiv Infections and Aids: Responses to Resistance and Aerobic Training. *Journal of Sports Medicine & Physical Fitness*, 55(5), 1013-1028.
- Shephard, R. J.** (2015). Qualified Exercise and Fitness Professionals and Exercise Prescription: Evolution of the Par-Q and Canadian Aerobic Fitness Test. *Journal of Physical Activity and Health*, 12(4), 454-461.
- Shephard, R. J.** (2015). Responses of the Human Spleen to Exercise. *Journal of Sports Science*, 34(10), 929-936.
- Shephard, R. J.** (2015). Sport Participation and Ramadan Observance: Advice for the Athlete. *Journal of Fasting & Health*, 3(2), 65-73.
- Shephard, R. J.** (2015). The Female Athlete. M. L. Mountjoy (Ed). Book Review. *Applied Physiology, Nutrition, and Metabolism*, 40(3), 307.
- Shephard, R. J.** (2015). Time to Bust the Myth? *British Journal of Sports Medicine*, 49(23), 1541-1542.
- Shephard, R. J.** & Johnson, N. (2015). Effects of Physical Activity Upon the Liver. *European Journal of Applied Physiology*, 115(1), 1-46.
- Taktak, F., Taktak, I. & **Shephard, R. J.** (in press). A Controlled Trial Assessing the Effect of Plyometric Training on the Flexibility of International-Level Rhythmic Gymnasts. *Swedish Journal of Scientific Research*.
- Warburton, D. E. R., Jamnik, V., Shannon S. D. Bredin, B. D., **Shephard, R. J.** & Gledhill, N. (2015). The 2015 Physical Activity Readiness Questionnaire for Everyone (Par-Q+) and Electronic Physical Activity Readiness Medical Examination (ePARmed-X+). French North America Version (Questionnaire sur L'aptitude à L'activité Physique pour Tous (2015 Q-Aap+)). *Health & Fitness Journal of Canada*, 8(1), 57-60.
- Warburton, D. E. R., Jamnik, V., Shannon S. D. Bredin, B. D., **Shephard, R. J.** & Gledhill, N. (2015). The 2015 Physical Activity Readiness Questionnaire for Everyone (Par-Q+) and Electronic Physical Activity Readiness Medical Examination (ePARmed-X+). *Health & Fitness Journal of Canada*, 8(1), 53-56.
- Warburton, D. R., Bredin, S. S. D., Jasmnik, V., **Shephard, R. J.** & Gledhill, N. (2016). Consensus on Evidence-Based Preparticipation Screening and Risk Assessment. *Annual Reviews in Gerontology and Geriatrics*, 36(Suppl. 1): S266-98.
- Dietz, C. M., Casey, S. L., **Stirling, A. E.** & Porter, N. (2016). Development and Validation of the Coach-Athlete Relationship Emotional Maltreatment Scale (CAREMS). *Athletic Insight*, 7(3).
- Stirling, A., Kerr, G.,** MacPherson, E., Banwell, J., Bandlealy, A. & Battaglia, A. (in press). Do Post-Secondary Internships Address the Four Learning Modes of Experiential Learning Theory? An Exploration Through Document Analysis. *Canadian Journal of Higher Education*.
- Stirling, A. E. & Kerr, G. A.** (2015). Creating and Documenting Meaningful Co-Curricular Experiences in Higher Education. *Journal of Education & Social Policy*, 2(6), 1-7.
- Reed, N., **Taha, T.,** Monette, G. & Keightley, M. (in press). A Preliminary Exploration of Concussion and Strength Performance In Youth Ice Hockey Players. *International Journal of Sports Medicine*.
- Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., MacDonald, D., Strachan, L. & **Tamminen, K. A.** (in press). A Model of Positive Youth Development Through Sport Based on Results from a Qualitative Meta-Study. *International Review of Sport and Exercise Psychology*.

PUBLICATIONS (2015-2016) CONT'D

- Taylor, D.** (2015). R. A. Lafferty: The Function Of Archetype in the Western Mystical Tradition. *Feast of Laughter: An appreciation of R. A. Lafferty*, 3, 128-151.
- Bentley, D. C. & **Thomas, S. G.** (in press). Maximal Intermittent (Mint) Handgrip Strategy: Design and Evaluation of an Exercise Protocol and a Grip Tool. *Clinical Interventions in Aging*.
- Bentley, D., Nguyen, C. & **Thomas, S.** (2015). Resting Blood Pressure Reductions Following Isometric Handgrip Exercise Training and The Impact Of Age and Sex: Protocol for a Systematic Review. *Systematic Reviews*, 4, 176.
- Ghisi, G. L. M., Grace, S. L., **Thomas, S.**, Vieira, A. M., Costa, A. Z. & Oh, P. (2015). Knowledge and Exercise Behavior Maintenance in Cardiac Rehabilitation Patients Receiving Educational Interventions. *Heart & Lung*, 44(6), 474-480.
- Patel, B., Hamilton, J., Vien, S., **Thomas, S.** & Anderson, G. H. (in press). Pubertal Status, Pre-Meal Drink Composition, and Later Meal Timing Interact in Determining Children's Appetite and Food Intake. *Applied Physiology, Nutrition, and Metabolism*.
- Tsai Chang, M. & **Thomas, S. G.** (in press). 3-Min All-Out Test in Swimming. *International Journal of Sports Physiology and Performance*, 1-14.
- de Grosbois, J. & **Tremblay, L.** (2015). Quantifying Online Visuomotor Feedback Utilization In The Frequency Domain. *Behavior Research Methods*. Doi:10.3758/s13428-015-0682-0
- de Grosbois, J., Heath, M. & **Tremblay, L.** (2015). Augmented Feedback Influences Upper Limb Reaching Movement Times but Does not Explain Violations of Fitts' Law. *Frontiers in Psychology*, 6, 800.
- Heath, M., Samani, A., **Tremblay, L.** & Elliott, D. (in press). Fitts' Theorem in Oculomotor Control: Dissociable Movement Times for Amplitude and Width Manipulations. *Journal of Motor Behaviour*.
- Kiernan, D., Manson, G., Heath, M. D., **Tremblay, L.** & **Welsh, T. N.** (2016). Corrections in Saccade Endpoints Scale to the Amplitude of Target Displacements in a Double-Step Paradigm. *Neuroscience Letters*, 46-50.
- Loria, T., de Grosbois, J. & **Tremblay, L.** (in press). Can You Hear That Peak? Utilization of Auditory and Visual Feedback at Peak Limb Velocity. *Research Quarterly for Exercise and Sport*.
- Banks, L., **Wells, G. D.**, Clarizia, N. A., Jean-St-Michel, E., McKillop, A., Redington, A. N. & McCrindle, B. W. (in press). Short-Term Remote Ischemic Preconditioning is not Associated with Improved Blood Pressure and Exercise Capacity in Young Adults. *Applied Physiology, Nutrition, and Metabolism*.
- Caterini, J., Duffin, J. & **Wells, G. D.** (2015). Limb Movement Frequency is a Significant Modulator of the Ventilatory Response During Submaximal Cycling Exercise in Humans. *Respiratory Physiology and Neurobiology*, 220, 1-16.
- Lewis, E. J. H., Radonic, P. W., Wolever, T. M. S. & **Wells, G. D.** (2015). 21 Days of Mammalian Omega-3 Fatty Acid Supplementation Improves Aspects of Neuromuscular Function and Performance In Male Athletes Compared to Olive Oil Placebo. *Journal of the International Society of Sports Nutrition*, 12(28), 1-11.
- Sussman, D., Lye, S. L. & **Wells, G. D.** (in press). Effects of Maternal Physical Activity on Fetal Breathing and Body Movement. Best Practice Guidelines. *Early Human Development - Exercise during pregnancy: Fetal physiological implications (Special Issue)*.
- Sussman, D., Lye, S. L. & **Wells, G. D.** (in press). Effects of Maternal Physical Activity on Fetal Breathing and Body Movement. Introduction and Overview. *Early Human Development - Exercise during pregnancy: Fetal physiological implications (Special Issue)*.
- Sussman, D., Lye, S. L. & **Wells, G. D.** (in press). Effects of Maternal Physical Activity on Fetal Breathing and Body Movement. Summary and Synthesis of Current Knowledge. *Early Human Development - Exercise during pregnancy: Fetal physiological implications (Special Issue)*.
- Wells, G. D.**, Banks, L., Thompson, S., Caterini, J., Noseworthy, M., Rayner, T., Syme, C., McCrindle, B. & Hamilton, J. (in press). Slower Phosphocreatine Recovery is Associated With Insulin Resistance Severity in Obese Adolescents. *Pediatric Obesity*.
- Böckler, A., van der Wel, R. P. R. D. & **Welsh, T. N.** (2015). Eyes Only? Perceiving Eye Contact is Neither Sufficient nor Necessary for Attentional Capture by Face Direction. *Acta Psychologica*, 160, 134-140.
- Constable, M. D., Pratt, J., Gozli, D. G. & **Welsh, T. N.** (2015). Do You See What I See? Co-Actor Posture Modulates Visual Processing in Joint Tasks. *Visual Cognition*, 23, 699-719.
- Glazebrook, C., **Welsh, T. N.** & **Tremblay, L.** (2015). The Processing of Visual and Auditory Information for Reaching Movements. *Psychological Research*, 1-17.
- Huffman, G., Gozli, D. G., **Welsh, T. N.** & Pratt, J. (2015). Hand Position Influences Perceptual Grouping. *Experimental Brain Research*, 233(9), 2627-2634.
- Janczyk, M., **Welsh, T. N.**, & Dolk, T. (2015). A Role of Action Goals for Social Inhibition of Return? *Quarterly Journal of Experimental Psychology*, 1-39.
- Jovanov, K., Clifton, P., Mazalek, A., Nitsche, M. & **Welsh, T. N.** (2015). The Limb-Specific Embodiment of a Tool Following Experience. *Experimental Brain Research*, 233(9), 2685-2694.
- McDougall, L. M., Kiernan, D., Kiss, Z. H. T., Suchowersky, O. & **Welsh, T. N.** (2015). Abnormal Surround Inhibition does not Affect Asymptomatic Limbs in People with Cervical Dystonia. *Neuroscience Letters*, 604, 7-11.
- Neyedli, H. F. & **Welsh, T. N.** (2015). Experience and Net Worth Affects Optimality In a Motor Decision Task. *Motor Control*, 19(1), 75-89.
- Pacione, S. M. & **Welsh, T. N.** (2015). Embodying Animals: Body-Part Compatibility in Mammalian, Reptile and Aves Classes. *Acta Psychologica*, 160, 117-126.
- Roberts, J. W., Bennett, S. J., **Welsh, T. N.**, Elliott, D., Lyons, J. L. & Hayes, S. J. (2015). The Influence of Environmental Context in Interpersonal Observation-Execution. *Quarterly Journal of Experimental Psychology*, 1-32.
- Roberts, J. W., Blinch, J., Elliott, D., Chua, R., Lyons, J. L. & **Welsh, T. N.** (2016). The Violation of Fitts' Law: An Examination of Displacement Biases and Corrective Submovements. *Experimental Brain Research*, 1-13.



activities
obligation
(Crawfor)



UNIVERSITY OF TORONTO
FACULTY OF KINESIOLOGY & PHYSICAL EDUCATION