Perspectives in Exercise, Health & Fitness

2018 Conference Program

October 18-21

Kananaskis Alberta

Provincial Fitness Unit of Alberta

Perspectives in Exercise, Health & Fitness

2018 Conference

Welcome to Perspectives in Exercise Health and Fitness 2018.

Join us for an outstanding conference experience in a world class location: Three days of learning and networking at this premier Canadian event for exercise and fitness professionals.

Expect the best.

- Panel discussions led by conference presenters on the top three Canadian health issues; advances in occupational, field and maximal testing; and human movement dynamics
- 30+ sessions to choose from delivered by industry experts
- Networking with more than 350 conference attendees from across western Canada: researchers, industry leaders, exercise physiologists, personal trainers and practitioners
- Full complement of professional development credits for a range of accreditations: PDCs, CECs, CPDs and PDUs

Don't miss your chance to:

- Network with a cross-section of the exercise and fitness industry's best experts and practitioners
- Learn the latest evidence-based research and leading practices from national and international experts
- Present your outcome focused research or programs at the Poster Presentation
- Contribute to the future development of the industry by taking part in symposium panel discussions

Register before September 8 for advanced registration discount.

The Provincial Fitness Unit was the first organization in Canada to develop standards and certification for exercise professionals, and we opened Canada's first Accredited Fitness Appraisal Centre at the University of Alberta in 1982. Our passion? To contribute to the health of Albertans and inspire our community to be physically active. We do this through advocacy, community programming, and supporting education, accreditation and standards for exercise professionals.

PROVINCIAL FITNESS UNIT

UNIVERSITY OF ALBERTA
FACULTY OF KINESIOLOGY, SPORT, AND RECREATION

Fitness Leadership SINCE 1984
AFLCA
ALBERTA FITNESS LEADERSHIP CERTIFICATION ASSOCIATION

Perspectives in Exercise, Health & Fitness

Accommodation

The Pomeroy Kananaskis Mountain Lodge is located 100 kms west of Calgary at:

Pomeroy Kananaskis Mountain Lodge
1 Centennial Drive, Kananaskis Village

Kananaskis Country has something to satisfy almost every outdoor interest from fishing to hiking, skiing, mountain biking, camping, rafting, canoeing, and kayaking. In October the weather in the mountains is quite unpredictable, but typically one can enjoy cool, crisp, sunny days.

Reservations should be made prior to September, 29, 2018, to ensure conference room rate and availability. After September 29, 2018, reservations will be accepted on a first-come, first-served basis. We anticipate a sold out conference so please book your rooms as soon as possible.

Conference delegates may book accommodation online or by calling the reservations department at 1-888-591-6240.

When booking reservations by phone, please inform the hotel that you are with the Perspectives in Exercise Health and Fitness Conference; use the group code PE1.*

Book online with links below:
TWO RATE OPTIONS:

Mount Kidd, $159/ night

Autograph Collection, $170/night

Thursday, Oct 18

2:00-6:00 pm

Working with the back-pained client

Dr. Stu McGill

* ***This pre-conference opportunity is hosted Thursday-Friday, October 18-19***

Back pain always has a cause. What is programmed and performed in the training centre influences whether the pain gets better or worse. Too many back-pained people fail to recover because of their training flaws. This has negative impact on the client and the trainer/clinician. This session reviews the mechanisms of back pain that are fully in control of the trainer. Then an assessment is workshopped to converge on an understanding of the pain mechanism in terms of exacerbating postures, motions and loads. Recovery begins with strategies to remove the cause, desensitize the pain and adapt tissue. Then strategic stability and mobility is tuned for the individual to unlock pain-free movement from their articulated linkage (their body). Progressions create competent movement in patterns of push, pull, lift, and carry to name a few. Final issues address the transfer of pain-free success from the training centre to real life activity, and how to know when it is appropriate to resume sporting activities. Wear training gear.

Friday, Oct 19

8:30 am-12:30 pm

Working with the back-pained client (cont'd)

Dr. Stu McGill

Continue exploring issues and solutions for the back pained client with renowned expert, Dr. Stuart McGill.

9:00 am-12:30 pm

SYMPOSIUM

Mixed goals of performance in older adults: fat loss, muscle gain and bone maintenance

Dr. Tish Doyle Baker, Dr. Benham Sharif, Dr. Jessica McNeil

In changing environments, different body tissues adapt in particular ways. This symposium will review the latest research findings on the roles that bone, fat and muscle play from an evolutionary perspective to performance outcomes. We will focus on:

1. the metabolic adaptations following weight loss and how evolution makes this a success story;
2. addressing the knowledge gaps related to body composition by explaining the concept of the fat mass index, and
3. describing the mixed goals of performance in aging as they relate to fat loss, muscle gain and bone maintenance.

Perspectives in Exercise, Health & Fitness

2018 Schedule at-a-glance

PRE-CONFERENCE | Thursday October 18

2:00 pm– 6:00 pm	**Working with the back-pained client** Dr. Stuart McGill

PRE-CONFERENCE | Friday, October 19

8:30 am – 12:30 pm	**Working with the back-pained client (cont'd)** Dr. Stuart McGill
9:00 am – 12:30 pm	**Symposium: Mixed goals of performance in older adult: fat loss, muscle gain and bone maintenance** Dr. Tish Doyle Baker, Dr. Behnam Sharif, Dr. Jessica McNeil

CONFERENCE | Friday, October 19

1:30 pm – 2:30 pm	**The real deal of muscle function** Fraser Quelch	**I have some news about your health—you may not want to sit down for this** Dr. Jamie Burr	**Lessons from the great athletes** Dr. Stu McGill
2:30 pm – 2:45 pm	Break		
2:45 pm – 3:45 pm	**Facebook, Instagram or Twitter - Oh My!** Chris Tse	**Exercise, sleep & cognitive function in the older adult** Dr. Marc Poulin & Veronica Guadagni, PhD	**Programming considerations in the daily training environment** Michael Cook,, MSc
3:45 pm – 4:30 pm	Break		
4:30 pm – 6:00 pm	**PERSPECTIVES IN EXERCISE, HEALTH & FITNESS OPENING PLENARY SESSION** **Jungle Tiger: Using a growth mindset to become a better life learner** Trevor Ragan		
6:00 pm – 10:30 pm	**Poster Presentations and Reception**		

Perspectives in Exercise, Health & Fitness

2018 Schedule at-a-glance

CONFERENCE | SATURDAY, October 20

7:30 am – 8:30 am	Continental Breakfast			
8:30 am – 9:30 am	**PERSPECTIVES IN EXERCISE HEALTH & FITNESS SATURDAY PLENARY SESSION** **Endure: Mind, body and the curiously elastic limits of human performance** Alex Hutchinson, PhD			
9:30 am – 9:45 am	Break			
9:45 am – 10:45 am	**A sweet take on health: Sugar can't be that bad... can it?** Dr. Adam Upshaw	**Age & stage appropriate plyometric training** Michael Cook, MSc	**Prenatal exercise: Guidelines for better health** Dr. Margie Davenport	
10:45 am – 11:00 am	Break			
11:00 am – 12:00 pm	**Fear: How to overcome fear and spend more time in the jungle** Trevor Ragan	**Going against the flow: Blood flow restriction for augmenting human performance** Dr. Jaime Burr	**Physical literacy is more than physical: Developing executive functions & social-emotional skills through sport & physical activity** Dr. Vicki Harber	**Applying anatomy & biomechanics to enhance exercise outcomes** Dr. Loren Chui
12:00 pm – 1:30 pm	Lunch & Activities			
1:30 pm – 2:30 pm	**Learning like a scientist: How to find learning opportunities in obstacles and failures** Trevor Ragan	**Examining squat variations for targetted muscle strengthening** Torstein Eriksen Daehlin, PhD	**Training the menstrual cycle: Optimization or periodization** Dr. Tish Doyle Baker	**The evolution of an occupational fitness test** Dr. Randy Dreger
2:30 pm – 2:45 pm	Break			
2:45 pm – 3:45 pm	**How to build a growth mindset culture** Trevor Ragan	**The science of running: Lessons from the two-hour marathon chase** Alex Hutchinson, PhD	**Perceived & actual barriers to physical activity participation in the older adult** Dr. Marc Poulin, Samantha Hall & Alia Bharwani, MpH-Hp, BSc-Kin	
3:45 pm – 4-00 pm	Break			
4:00 pm – 5:15 pm	**Symposium: function vs mobility vs movement vs flexibility/ROM** Dr. Dennis Valdez, Dr. Loren Chui, Michael Cook, MSc	**Top 3 worst things Canadians are doing for their health** Dr. Adam Upshaw, Alex Hutchinson, PhD, Dr. Tish Doyle-Baker, Katherine MacKeigan	**Sport performance testing: From recreational youth to professional hockey player** Dr.. Randy Dreger, Dr. Jamie Burr, Dr. Stephen Norris, Alex Game, Msc	
5:15 pm – 6:30 pm	Break			
6:30 pm – 11:00 pm	**Death & Dice, Vegas Style.** **Reception, Casino, & Vegas Murder Mystery**			

Perspectives in Exercise, Health & Fitness

2018 Schedule at-a-glance

CONFERENCE | Sunday, October 21

7:30am – 8:30 am	Continental Breakfast		
8:30 – 9:30 am	**Post-exercise recovery techniques: What does the evidence say?** Alex Hutchinson, PhD	**Fake news or bad reporting? Either way, nutrition is confusing!** Dr. Adam Upshaw	**Foam rolling, flexibility and fascia: Myths and misconceptions** Dr. Dennis Valdez
9:30 am – 9:45 am	Break		
9:45 am – 10:45 am	**Communication in a fitness setting: Applying motivational counselling principles** Dr. Nicole Reed	**Sport performance training and development: an international (& personal) perspective** Dr. Stephen Norris	**Curious or spurious bone health findings: A sport scientist perspective** Dr. Tish Doyle Baker
10:45 am – 11:00 am	Break		
11:00 am – 12:00 pm	**“You are where you live.” Neighbourhoods, physical activity and health** Dr. Gavin McCormack	**Exercise for cancer survivors: A review of the evidence and practical applications** Dr. Chris Sellar	**The pain interrelationship: Physiological, psychological and environmental factors** Lorraine Glass

Friday, October 19

1:30 – 2:30 pm

The real deal of muscle function

Fraser Quelch

We know what our muscles do “anatomically” but does this change when we stand and move in a functional environment? Understanding how our body’s neuromuscular system is driven to react to our actions and how we can harness this incredible proprioceptive power is re-defining the way we train our clients. Learn how to use this powerful approach to create functional chain reactions that will increase muscle activation and bring your clients and athletes to their peak.

I have some news about your health—you may not want to sit down for this

Dr. Jamie Burr

In this session Dr. Burr will explore the ways in which sedentary time effects human health, with a particular focus on the cardiometabolic alterations that occur in response to a prolonged single exposure. We will explore the physiological adaptations which occur in the context of individual and population health, the current state of the research in this area, and practical solutions to off-setting sedentary time in today’s world.

Lessons from the great athletes

Stu McGill

Measuring the great athletes reveals the mechanisms that create their outstanding performance, and injury resilience. It is not always what is commonly thought. Being stronger can be a double edge sword. Speed and power often competes with common weight room practice. Discussion will broach anatomy, neurology, physiology, mechanics and the spectrum within biological adaptation.

2:45 - 3:45 pm

Facebook, Instagram or Twitter - Oh My!

Chris Tse

The world of social media can be a confusing place to navigate: from selfies to high quality cinematic footage, we are constantly producing and consuming media. What makes a great online presence? How do you gain clients and potentially sponsorships by using social media as a part of your networking arsenal? This session explores how to build an online brand and effectively use platforms like Instagram, Facebook, and Twitter to gain clients and attract sponsors

Exercise, sleep & cognitive function in the older adult

Dr. Marc Poulin & Dr. Veronica Guadagni

With a global dementia epidemic on our doorsteps, this symposium will address the important and emerging role of lifestyle interventions such as aerobic exercise, cerebrovascular regulation, sleep and cognitive activity for healthy brain aging and the potential impact of these interventions for the prevention and/or delay of Alzheimer disease and related dementias. This session will bring together speakers who will address the latest findings on preventive/intervention strategies to promote healthy brain aging. Further, it will examine evidence from animal and human research supporting the hypothesis that physical exercise has a beneficial impact on brain health and the underlying physiological mechanism will be discussed. Finally, other factors such as the role of sleep as potential mediator in the relationship between exercise and brain health will be discussed. The session will conclude with a panel discussion on the role of exercise and cognitive activity in delaying and/or preventing Alzheimer disease and dementia.

Programming considerations in the daily training environment

Michael Cook, MSc

This session is designed to provide a historical perspective of periodization concepts and paradigms in relation to today's fitness and sport environments. In particular, discussion shall be centred around accommodations for unique individual differences within group/team settings, and where applicable, examples of daily monitoring to inform the daily training environment shall be presented.

4:30-6:00 pm

Perspectives in Exercise Health & Fitness Opening Plenary Session

Jungle tiger: Using a growth mindset to become a better learner

Trevor Ragan

Tigers are a symbol of strength and courage, yet endangered. This metaphor has real meaning in what holds us back from achieving our goals. Join Trevor as he shows you how to open your mind to the learning opportunities all around you. Whether you are an athlete, teacher or change maker, being a learning machine will allow you to reach your capacity, grow and develop.

6:00-10:30 pm

Poster Presentation & Reception

Take in the #PEHF poster presentation showcasing innovative new research and programs in exercise, health and fitness. Network and nosh on some hearty snacks with your peers, and just for fun, we've booked a magician to wander about, and play a few tricks. Cash bar will be open.

Saturday, October 20

8:30-9:30 am

Perspectives in Exercise Health & Fitness Saturday Plenary Session

Endure: Mind, body and the curiously elastic limits of human performance

Alex Hutchinson, PhD

When you push until you can't go any farther or faster, what exactly is holding you back? Whether you're climbing mountains, running marathons, or hoisting weights, a surprising body of recent research suggests that in most cases, limits that feel physical are actually controlled by the brain. That doesn't mean that physical limits are simply "all in your head," but it does suggest that we can learn techniques to alter those brain-imposed limits.

9:45-10:45 am

A sweet take on health: Sugar can't be that bad...can it?

Dr. Adam Upshaw

One of the more common currently held nutrition beliefs is that sugar is a very dangerous dietary substance for many chronic health conditions including obesity. This session will put this claim into perspective through an open forum style discussion. Further, a more generalized discussion on dietary carbohydrates and weight management will be included.

Age & stage appropriate plyometric training

Michael Cook, MSc.

This session is designed to provide insight into the concept of traditional and non-traditional plyometrics and how to appropriately include them in an athletic or recreational athlete's physical training program. A framework with appropriate progressions and regressions, along with practical examples is discussed. Finally, maximal strength and other key physical components is discussed in relation to appropriate progressions of plyometrics for various ages and stages.

Prenatal exercise: Guidelines for better health

Dr. Margie Davenport

Habitual physical activity is associated with substantial health benefits including improvements in physical fitness and mental health, as well as decreased risk of chronic disease and mortality. Pregnancy is a unique period of a woman's life where lifestyle behaviours, including exercise, can significantly impact her health, as well as that of her baby. This session will provide an overview of the physiological adaptations of pregnancy on the body. Margie will discuss the considerations and potential benefits of exercise during pregnancy, and present current evidence-based guidelines for prenatal exercise prescription.

11:00-12:00 pm

Fear: How to overcome fear and spend more time in the jungle

Trevor Ragan

Fear: how it works, where it comes from. It helps us when we're in danger but hurts us when it comes to learning and developing. Fear of failure keeps you from trying—or from trying again. But becoming better is messy; it takes time and practice—it's about balancing at the edge of your abilities and dancing with the fear of the unknown.

Going against the flow: Blood flow restriction for augmenting human performance

Dr. Jamie Burr

In this session we will examine the novel technique of manipulating blood flow using tourniquet cuffs for human health and performance. We will explore the rationale and effects of manipulating flow both prior to competition, and during an exercise training session for rehabilitation and strength training purposes.

Physical literacy is more than physical: Developing executive functions and social-emotional skills through quality sport and physical activity

Dr. Vicki Harber

Physical literacy continues to evolve yet remains largely focused on executing and assessing physical or technical skills. We celebrate physical activity for its ability to improve fitness, support weight loss, and advance athlete performance while ignoring a wealth of other evidence-based benefits associated with quality sport and physical literacy experiences. In particular, building executive functions (EF) and social and emotional learning (SEL) skills THROUGH physical activity are overlooked. Becoming socially aware, learning to manage emotions, and developing responsible decision-making skills are but a few of the attributes that are shaped through quality physical literacy experiences. This talk will discuss these essential elements and describe how to build a comprehensive physical literacy experience for your participants.

Applying anatomy and biomechanics to enhance exercise outcomes–did our anatomy textbooks lie?

Dr. Loren Chui

Human muscles have complex features that are not fully described in traditional anatomy courses and textbooks. Biomechanics principles will be explored to provide a foundation to examine how muscles are designed and integrated with the skeleton to create movement. Specific examples are discussed to illustrate how better understanding of muscle actions can be used to modify resistance training exercises.

1:30-2:30 pm

Learning like a scientist: How to find learning opportunities in obstacles and failure

Trevor Ragan

Maybe we didn't learn everything we needed to learn about life in kindergarten, maybe we learned it from our grade 5 science teacher. Scientists learn the hard way; they have huge goals–curing cancer, colonizing Mars–and everything they do when they walk into the lab reflects that goal. Do something, screw up something (how many times did Edison fail before he successfully invented the light bulb?) – reflect on the process and try again. That's learning like a scientist.

Examining squat variations for targeted muscle strengthening

Torstein Eriksen Dæhlin, PhD

This session will explore how biomechanical principles may be applied to gain a deeper understanding of the squat exercise and its variations. Particular attention will be given to the use of biomechanical principles to understand the muscular demand of the squat. Moreover, how different variations of the squat changes the muscular demands of the exercise will be examined, and how different squat variations may be used to strengthen specific muscle groups discussed.

Training the menstrual cycle: Optimization or periodization

Dr. Tish Doyle Baker

The aim of this presentation is to review the current research examining the effects of the menstrual cycle on exercise and consider the challenges of female-specific research. This session begins with describing the menstrual cycle and propose methods for use in research (stress and heart rate variability). Then we explain oral contraceptive use and its influence on exercise and training adaptations (fat and protein). Finally we summarize the current knowledge and research gaps in the investigation of hormones in exercise science.

The evolution of an occupational fitness test

Dr. Randy Dreger

The development of valid and reliable fitness assessments require a number of steps from concept to practice. This session will discuss various steps involved in the development of an assessment. A case study of a single assessment and its evolution over the past 30 years will be utilized as a model.

2:45-3:45 pm

How to build a growth mindset culture

Trevor Ragan

Great learners (jungle tigers) can do serious damage in ANY arena– including politics, education or health care. And the key to being a great learner is to first believe that you can. In this session, we'll outline research and case studies about how to create a safe place for learning.

The science of running: Lessons from the two-hour marathon chase

Alex Hutchinson, PhD

When Kenyan marathoner Eliud Kipchoge ran an unprecedented time of 2:00:25 last year in Nike's Breaking2 race, observers were left wondering how he had run 2.5 minutes faster than the world record. Was it the high-tech shoes? The team of pacemakers blocking the wind? The bioengineered sports drink? As a reporter for Runner's World, Alex Hutchinson had behind-the-scenes access to Breaking2's scientific team, and he shares the crucial takeaways about what worked, what didn't, and what it means for the rest of us.

Perceived and actual barriers to physical activity participation in the older adult

Dr. Marc Poulin, Samantha Hall & Alia Bharwani

Exercise interventions are often successful at helping older adults increase their physical activity levels. But when interventions end, these gains often fade without the intensive instruction and support typically provided in interventions. Furthermore, most people experience barriers that limit their participation in physical activity, and make it difficult to translate increased physical activity levels into their everyday routines. Most individuals need support and strategies to overcome those barriers in their daily lives and make the transition to a sustainable, active lifestyle. Given that older adults are a diverse population, and may experience unique barriers to physical activity from the general population, behavior change support interventions are needed that are designed for older adults and can be tailored to individual needs. In the Brain in Motion II study we have developed a theory- and evidence- based behavior change support intervention to help older adults increase and maintain physical activity in their daily lives. In this session, we will introduce types of barriers and challenges that older adults may encounter when trying to increase and maintain physical activity (results from the Brain in Motion I study), and examples of techniques and a strategy to overcome them (proposed approach to be used in the Brain in Motion II study).

4:00-5:15 pm

SYMPOSIUM: What comes first? Mobility or flexibility? What's more important? Function or range of motion?

Dr. Dennis Valdez, Dr. Loren Chui, Michael Cook, MSc

Panel details to follow

SYMPOSIUM: Top 3 worst things Canadians are doing for their health

Alex Htuchinson, PhD, Dr. Adam Upshaw, Dr. Tish Doyle-Baker, Katherine MacKeigan

Panel details to follow

SYMPOSIUM: Sport performance testing: from recreational youth to professional hockey player

Dr. Randy Dreger, Dr. Jamie Burr, Dr. Stephen Norris, Alex Game MSc

Panel details to follow

6:30-11:00 pm

Death & Dice, Vegas Style

Reception, casino, murder mystery & tradeshow

The money is fake. The mystery is real. And the fun. This year, kick back after a full day of sessions at our casino and murder mystery night, with a retro Las Vegas theme, (think mob-controlled Vegas of yore or DeNiro in Casino). Get out your dress black and whites, and don your lucky bling. Check out the tradeshow, play a little blackjack, watch for bodies under the tables, anything with fava beans, and have some fun.

Reception meal with cash bar. Wear black & white, fancy or causual (tie, bling, big hair, optional).

Sunday, Oct 21

8:30-9:30 am

Post-exercise recovery techniques: What does the evidence say?

Alex Hutchinson, PhD

From ice baths to compression tights to high-tech cryosaunas, devices and techniques that promise to accelerate your post-workout recovery are a huge industry. But which techniques actually deliver measurable benefits? The scientific literature offers some helpful guidance, along with an important warning: faster recovery may not always be better for you.

Fake news or bad reporting? Either way, nutrition is confusing!

Dr. Adam Upshaw

For those looking to fully understand and appreciate nutrition media headlines and subsequently discuss with clients, this session is for you. We will explore various nutrition claims, statements and advertising 'bombshells' with the end goal of being able to decipher through the fluff and hype and take hold of the 'meat and potatoes'. If you just feel really confused about the 'latest' nutrition advice, this session is for you!

Foam rolling, flexibility and fascia: Myths and misconceptions

Dr. Dennis Valdez

The use of foam rollers has increased significantly outside of traditional rehabilitation clinics due to the user-friendliness, portability, diversity, and versatility of the instruments used. The number of commercial tools available for purchase has also significantly increased. The rationale used to explain the utility of these tools and methods might be easy to understand; however, there may be some misunderstandings. This session discusses fascial treatments related to the goals of "improving" flexibility.

9:45-10:45 am

Communication in a fitness setting: Applying motivational counselling principles

Dr. Nicole Culos-Reed

In this session, you will learn about motivational counselling (background/ overview), the evidence for application in physical activity settings (i.e., impact on behaviour change), and how to apply motivational counselling strategies in practice.

Sport performance training and development: An international (& personal) perspective

Dr. Stephen Norris

In this session, Dr. Stephen Norris discusses trends that he has observed or been involved with over the past 5 years internationally, as well as allow time for discussion. Additionally, Stephen has been tasked by the 'Perspectives' organizers with sharing a little of what he, as an applied sport scientist, does from a career perspective. To this end, Stephen will provide an overview of his academic and practical career path to date, including where he sees himself 'going' over the next decade. Unafraid to touch on personal experiences and life lessons, Stephen hopes that the audience will gain from the sharing of professional successes and mistakes he has made to date.

Curious or spurious bone health findings: A sport scientist perspective

Dr. Tish Doyle Baker

Sports science is the study of the body as a performance machine. Understanding the interplay between training diaries (self-report bias), DXA scans (objective results), and clinical outcomes (higher baseline in athletes) can be confusing when performance is the ultimate goal and health plays second fiddle. Yet, we know that maximum bone loss probably occurs with amenorrhoea onset, so treatment should start as early as possible. This session will tell the story of investigating bone loss in female athletes.

11:00-12:00 pm

"You are where you live." Neighbourhoods, physical activity, and health

Dr. Gavin McCormack

This presentation will include a discussion of current scientific evidence on the relationship between the urban built environment and physical activity, followed by an in-depth description and presentation of findings from several local studies that have investigated the relationships between the perceived and objectively-measured neighbourhood built environment, physical activity, sedentary behaviour, and weight status in Canadian adults.

Exercise for cancer survivors: A review of the evidence and practical applications.

Dr. Chris Sellar

Exercise has been shown to improve health-related fitness, psychosocial health, and disease outcomes in cancer survivors. The current evidence supporting these benefits will be reviewed. Additionally, guidelines and strategies for providing safe and effective exercise programs for cancer survivors will be discussed.

The pain interrelationship: Physiological, psychological and environmental factors

Lorraine Glass

Pain, a physiological response, but to what? Our brain is amazing! Learn the interrelationship between factors that impact the pain and recovery process. See how beliefs, thoughts, emotions, past experiences, stress, lifestyle and yes, coaching impact 'pain'. Learn how to reduce the perception that movement is threat. Explore strategies such as graded exposure to help the 'client with pain' manage.

ALIA BHARWANI, MPH-HP, BSC-KIN

Alia has a BSc in Kinesiology and an MPH in Health Promotion. In the past she has worked on different projects focussing on active living, chronic disease prevention, and mental health promotion. She is now in the MSc program in Kinesiology at the University of Calgary, focussing on health and exercise psychology.

DR. JAMIE BURR

Dr. Burr is an assistant professor in Human Health and Nutritional Science and the director of the Human Performance and Health Research lab at the University of Guelph. He was recruited to Guelph in 2015, from a post at the University of PEI, in a dual role as a professor and member of the integrated support team for the local Olympians and elite athletes who live and train in Guelph with the SpeedRiver Track club. Jamie did his undergraduate degree in Kinesiology at the University of Western Ontario, after which he did an MSc and PhD in Cardio-respiratory physiology at York University in Toronto, and a Post-doc at the University of British Columbia in experimental medicine. Dr. Burr's work shares a joint focus on the role of exercise for promoting health and improving human performance. In this regard his work has focused on the cardiovascular and cardio-metabolic effects of prolonged and novel forms of exercise exposure in humans, with a specific focus on vascular flow and stiffness.

DR. LOREN CHUI

Loren is an associate professor at the University of Alberta. His research studies musculoskeletal function and its influence on human movement mechanics. He is particularly interested in the role of specific muscles and how they interact with the skeletal system to generate movement. Moreover, he provides support to enhance performance in youth and university athletes, and to restore function in individuals with musculoskeletal injury.

MIKE COOK, MSC

Michael Cook is the Head Coach for Sport Conditioning, and is responsible for not only delivering sport conditioning to varsity, post varsity, professional and national level athletes, but also the mentorship of undergraduate and graduate students in this area through lecturing and systematic mentorship opportunities. Michael is also the Manager of the ASDC - Capital Region whereby he ensures that sport science support is delivered to emerging athletes and coaches through strategic partnerships with identified provincial sport organizations and the ASDC - Calgary Region.

DR. NICOLE CULOS-REED

Dr. Culos-Reed is a Professor of Health and Exercise Psychology in the Faculty of Kinesiology, Adjunct Professor in the Department of Oncology in Cumming School of Medicine, and Director of the Health and Wellness Lab/ Thrive Centre. She also holds a Research Associate appointment with the Department of Psychosocial Resources at the Tom Baker Cancer Centre. Dr. Culos-Reed's research takes a multidisciplinary approach to understanding and improving the quality of life of cancer survivors by developing physical activity programs to address the physical and psychological challenges they face throughout treatment and survivorship. This research has led to much national and international collaboration, including projects with Prostate Cancer Canada, the Movember Foundation, and the Canadian Breast Cancer Foundation. Her ongoing work includes the development of an Alberta Cancer Exercise (ACE) program that moves exercise into standard of care for all cancer survivors.

TORSTEIN E. DAEHLIN, PHD (candidate)

Torstein E. Dæhlin (M.Sc., kinesiology, biomechanics) is a Ph.D. student of biomechanics at the University of Alberta. In his research, Torstein uses motion analysis and force measurement techniques to investigate the distinct actions of different muscles during multi-joint tasks. He is the lead author of the peer reviewed journal articles: 'Distribution of lower extremity work during clean variations performed with different effort', 'Enhancing digital video analysis of bar kinematics in weightlifting: A case study', and 'Improvement of ice hockey players' on-ice sprint with combined plyometric and strength training'. In 2017, Torstein was awarded the Vanier Canada Graduate Scholarship and University of Alberta President's Doctoral Prize of Distinction.

DR. MARGIE DAVENPORT

Margie Davenport is an assistant professor in the Faculty of Kinesiology, Sport and Recreation at the University of Alberta, and Director of the Program for Pregnancy and Postpartum Health (exerciseandpregnancy.ca). Her research program has been focused on the role of exercise during pregnancy on maternal/fetal health for the past 14 years. Currently, she is leading the re-development of the Canadian Clinical Practice Guidelines for Exercise During Pregnancy slated to be released in the fall of 2018.

DR. TISH DOYLE BAKER

Dr. Doyle-Baker is a graduate of the prestigious Loma Linda University and Medical Centre in California, where she completed her doctor of public health. Prior to this she graduated from the University of Victoria with her masters of exercise physiology/sport science and a BSc. in Human Performance/Biochemistry. Before joining the University of Calgary, Tish was co-owner of a rehabilitation clinic in Victoria and traveled extensively with national teams as a sport scientist /certified exercise physiologist (CSEP-CEP). Her love for sport, particularly skiing, has kept her in the coaching realm and her goal of injury prevention has been realized through numerous research projects. Tish is passionate about translating basic science into value for human health and is a sought-after speaker, mentor and writer in areas of sport and health. Tish believes in the mantra 'live it to lead it'.

DR. RANDY DREGER

Randy is an instructor/researcher in the Personal Fitness Trainer Program at the Northern Alberta Institute of Technology. For more than 20 years, Dr. Dreger has been studying the physical demands of firefighting. He received his Doctorate in Occupational/Work Physiology from the University of Alberta, where he co-developed the Canadian Forces Firefighter Pre-employment Testing Standard, which is used across Canada. From a physiological perspective, he has studied the cardiopulmonary responses to exercise in firefighting gear; with particular emphasis on the self-contained breathing apparatus. In addition to his research, he has trained numerous fire, police and paramedic applicants to meet the physical fitness requirements.

LORRAINE GLASS

Lorraine Glass, currently works at NAIT in the Personal Fitness Trainer diploma program. As CSEP Exercise Physiologist, Lorraine has expanded her scope of interest and is in the final semester at McGill University about to earn the designation Chronic Pain Management Specialist. A member of the Canadian Pain Association, Lorraine recognizes the importance movement has with healing, pain control and overall wellness.

VERONICA GUADAGNI , PHD

Veronica completed her Ph.D. in Brain and Cognitive Sciences (Psychology) at the University of Calgary. Her research focused on investigating the effects of sleep, sleep-deprivation, and sleep disturbances on cognitive functioning and brain structure and function. Focus of the research was how sleep (and the lack thereof) affects the human ability to empathize with others and the way individuals process emotional stimuli, as well as the ability to orient in the environment. As a Postdoctoral Fellow, Veronica is investigating how a six-month aerobic exercise intervention can improve elderly individuals' cognitive ability and brain health, and the role of sleep quality as a mediator in this relationship.

SAMANTHA HALL, BHSC

Samantha recently completed her Bachelor of Health Sciences Honours in Biomedical Sciences completing a thesis which examined the role of lifetime and current physical activity on cortisol responsivity in older adults. She is currently the study coordinator for the Brain in Motion studies.

DR. VICKI HARBER

Vicki is Professor Emeritus at the University of Alberta from the Faculty of Kinesiology, Sport & Recreation. She is a member of Canada's Sport for Life Leadership team and is helping to advance physical literacy and long-term athlete development while improving the quality of sport across Canada. Vicki was a member of Alberta's Sport Plan Task Force, past AFLCA board Director and served on the City of Edmonton's Live Active Steering

Committee. In 2011 and 2012, Vicki was honoured by the Canadian Association for the Advancement of Women and Sport and Physical Activity as one of the most influential women in sport and physical activity. Experiences from two Olympic Games on the Canadian Rowing team, researching the female athlete as an academic, coaching an elite girls' soccer team and being a parent fuel her passion for her work. Much more than content knowledge is needed to bring Active Alberta's vision to life; it is essential to work collaboratively and build relationships grounded in trust and humility. Her greatest joy comes from working with those who are willing to examine the "way things are done" and not afraid to do the right thing for the right reason.

ALEX HUTCHINSON, PHD

Alex Hutchinson (@sweatscience) is a science and fitness journalist for Outside, the Globe and Mail, Canadian Running, and other publications. His latest book, the New York Times bestseller "ENDURE: Mind, Body, and the Curiously Elastic Limits of Human Performance," explores the science of endurance. Prior to becoming a journalist, he worked as a postdoctoral physicist with the U.S. National Security Agency, and competed for the Canadian national team in track, cross-country, and mountain running.

DR. GAVIN MCCORMACK

Gavin is a Canadian Institutes of Health Research (CIHR) New Investigator. He holds a faculty appointment as an Associate Professor in the Department of Community Health Sciences, Cumming School of Medicine (University of Calgary), and is an Adjunct Associate Professor in the Faculty of Environmental Design (University of Calgary). Dr. McCormack has a BSc in Human Movement from The University of Western Australia, MSc in Sports Science (Exercise Physiology specialization) from Edith Cowan University (Western Australia), and PhD in Public Health from the University of Western Australia. His research program in population and public health predominantly focuses on the relationships between the physical and social environments and health (e.g., physical activity, diet, sedentary behaviour, and weight status). Dr. McCormack has been Principal Investigator on several CIHR-funded projects investigating built environments and physical activity and health outcomes in adult populations. In 2017, he was awarded a 5-year CIHR Foundations Grant to develop and implement a research program focussed on providing more rigorous causal evidence between neighbourhood built form and physical activity using natural experiments. Dr. McCormack is also an Associate Scientific Editor for the Public Health Agency of Canada's flagship publication *Health Promotion and Chronic Disease Prevention in Canada*.

DR. STUART MCGILL

Dr. McGill is a professor emeritus, University of Waterloo, where he was a professor for 32 years. His laboratory and experimental research clinic investigated issues related to the causal mechanisms of back pain, how to rehabilitate back-pained people and enhance injury resilience and performance. This produced over 240 peer-reviewed scientific journal papers, many international awards, and has mentored over 40 graduate students during this scientific journey.

DR. JESSICA MCNEIL

Dr. Jessica McNeil is a Postdoctoral Fellow in the Department of Cancer Epidemiology and Prevention Research (Alberta Health Services in Calgary) and a Guest Postdoctoral Scholar in the Departments of Oncology and Community Health Sciences within the Cumming School of Medicine (University of Calgary). Her graduate work has primarily focused on the impact of physical activity, weight loss, and sleep on eating behaviors and the energy balance. Her postdoctoral work includes the development of a randomized controlled trial aimed at assessing the effects of a home-based, light intensity physical activity intervention on markers of health-related fitness and quality of life in inactive breast cancer survivors. She also conducted secondary data analysis to investigate the associations between sleep duration and sleep timing with cancer risk in Alberta's Tomorrow Project. She currently holds Postdoctoral Fellowship Awards from the Canadian Institutes for Health Research (CIHR) and Alberta Innovates-Health Solutions (AI-HS). Her CIHR Fellowship Award application was nominated for the Alice Wilson 2016 award, offered to "a woman of outstanding academic qualifications who is entering a career in scholarship or research at the postdoctoral level".

DR. STEPHEN NORRIS

Dr. Stephen Norris is a leading performance consultant and applied sport scientist currently working with a select group of international organizations engaged in the performance of sport, business, and military objectives. Specific projects currently involve; Sport for Life (Canada), the International Ice Hockey Federation (IIHF), Hockey Canada, the Professional Golfer's Association of America (The PGA), LEGO® SERIOUS PLAY®, plus several sport development and corporate speaking engagements worldwide. Overall, Stephen views himself as a 'sustainable performance system conversationalist' and aims to assist individuals, teams, organizations, and corporations to achieve more effective and efficient levels of impact.

DR. MARC POULIN

Marc Poulin is Professor of Physiology in the Cumming School of Medicine (Departments of Physiology & Pharmacology, and Clinical Neurosciences) and the Faculty of Kinesiology at the University of Calgary. He is a member of the Hotchkiss Brain Institute, the Libin Cardiovascular Institute of Alberta, and the O'Brien Institute of Public Health at the University of Calgary. He also holds the Brenda Strafford Foundation Chair in Alzheimer Research. He earned a Bachelor of Physical and Health Education (Honors) from Laurentian University, an MA and PhD in Exercise Physiology from the University of Western Ontario and a DPhil in Respiratory and Cerebrovascular Human Physiology from the University of Oxford. His research focuses on the mechanisms of cerebrovascular regulation and perturbations in blood gases in health and disease. His two primary research areas include: healthy brain aging and dementia (focusing on the impact of exercise on cerebral blood flow and cognitive function); and the effects of intermittent hypoxia in health (using experimental human models), in workers who work at high altitude, and in the pathogenesis of obstructive sleep apnea. Dr. Poulin leads a graduate training specialization program in Mountain Medicine and High Altitude Physiology at the University of Calgary. He currently serves on the scientific advisory board of the International Hypoxia Symposia Conference series, and served as Editor for the *Journal Experimental Physiology* (Physiological Society, UK; 2013-2017).

FRASER QUELCH

Fraser is an internationally renowned expert and founder of the revolutionary training company TRX® He is an award winning presenter who's been featured at conferences and events all over the world including an appearance on the TEDx stage. Fraser combines an animated, entertaining style with his knowledge and gift to motivate and inspire. His provocative presentations have been known to stretch the minds of his audiences and provide relevant and effective training solutions in a practical setting.

TREVOR RAGAN

Trevor Ragan, founder of *Train Ugly*, is a self-confessed nerd. He spends his time with the scientists and thought leaders in the world of development; he consumes their research and discoveries, connects the dots, and shares it with anyone that will listen. He's worked in hundreds of schools, with Fortune 500 companies, professional and Olympic teams, and even in a few prisons across the USA.

DR. CHRIS SELLAR

After completing his Bachelor's and Master's degrees with a focus on working with generally healthy and athletic individuals, Chris began his PhD training under the supervision of Dr. Kerry Courneya, a Canadian Research Chair in Physical Activity and Cancer, in the Faculty of Kinesiology, Sport and Recreation at the University of Alberta. Through his PhD, he had the opportunity to apply his background in exercise physiology to working with a clinical population. Chris has worked on numerous research trials that have examined the effects of exercise training both during and after cancer treatments, in many different cancer survivor groups including breast, prostate, lymphoma, and colorectal cancer. Chris is currently the project coordinator for the Alberta Cancer Exercise (ACE) study, which has the goal of incorporating exercise into the clinical care for cancer survivors across the province.

DR. BEHNAM SHARIF

Dr. Sharif's areas of interest are at the interface of Health Services Research and Computational Statistics. He is broadly interested in development of

data-driven computational tools to aid in health-policy decision making for obesity-associated chronic diseases. He completed his PhD at School of Population and Public Health, University of British Columbia in 2014 and worked as a research fellow at Statistics Canada-Health Analysis Division, Alberta Bone and Joint Health Institute and Community Health Sciences Department at University of Calgary.

DR. ADAM UPSHAW

Adam Upshaw obtained his PhD in Nutrition and Exercise Metabolism for the University of Western Ontario and is currently a full time instructor at Niagara College. He is a certified exercise physiologist (CSEP-CEP) and a Registered (Ontario) Kinesiologist. Adam has many years of experience providing nutrition and exercise assessments and prescriptions to recreational and elite level athletes as well as weight management clients. Adam is an avid ultra distance triathlete and tennis enthusiast.

DR. DENNIS VALDEZ

Dennis is an Associate Professor in Athletic Therapy at Mount Royal University (Calgary, AB). He currently teaches Adv. Emergency Management and Orthopedic Assessment. He also teaches Prevention and Care of Athletic Injuries in the Personal Fitness Trainer's Program through MRU Continuing Education, Muscle Energy Techniques through Sport Injury Consulting Inc., and Emergency Medicine with the International Olympic Committee Diploma in Sport Medicine Program (University of Calgary) for international physicians. Dr. Valdez currently sits on the Canadian Athletic Therapists Association Board of Directors. For 7 years, he served as the Chair of the Education Committee and an Exam Developer with the Canadian Board of Certification in Athletic Therapy. His research interests include chronic dysfunction and pain management, with a special interest in chronic sport injuries and post-concussion syndrome. His research challenges traditional, current, and popular treatment and management strategies. He currently treats patients with a long history of chronic pain, dysfunction, and unsuccessful treatments. For each patient, he hopes to provide high impact treatments in the fewest treatment sessions.

Perspectives in Exercise, Health & Fitness

Registration

Pre-conference

Thursday, October 18, 2:00 pm-6:00 pm & Friday October 19, 8:30 am-12:30 pm

Preconference fees include options for pre-conference only, one-day rate or combined with full conference with specific pre-conference registration.

Dr. Stuart McGill: Working with the back-pained client
Thursday, October 18, 2:00 – 6:00pm,
Friday, October 19, 8:30am – 12:30pm

Prior to September 8	**$160+gst**
Sept 8 – Oct 18	$179+gst
With 1-day pass	$279+gst

Symposium: Mixed goals of performance in older adult: fat loss, muscle gain and bone maintenance; **Dr. Tish Doyle Baker, Dr. Benham Sharif, Dr. Jessica McNeil**
Friday October 19, 9:00 am - 12:30 pm

Prior to Sept 8	**$80+gst**
Sept 8 thru Oct 18	$99+gst
With 1-day pass	$199+gst

*One-day pre-conference pass includes Friday afernoon conference sessions, keynote and reception.

Accommodations

Pomery Kananaskis Mountain Lodge, 1 Centennial Drive, Kananaskis Village

Book by telephone: 1-888-591-6240; use the code PE1
Book online (Two room rates & blocks: available until September 29)

Mount Kidd, $159/ night

Autograph Collection, $170/night

Register for Pre-Conference ONLY

Conference

Friday, October 19 1:30 pm to Sunday, October 21, 12:00 pm

Conference fees include all Conference sessions (excluding Pre-Conference sessions), keynote presentations, Reception (Friday),Reception (Saturday), Continental Breakfasts (Saturday and Sunday) Lunch (Saturday) and delegate gift.

Advanced registration (ends midnight September 7)	**$369+ gst**
Regular registration (September 8-October 17)	**$419+gst**

Student registration

Full time students*	**$299+gst**

*Registered in full-time studies at an accredited post-secondary institution in Fall, 2018. (Documentation of enrolment in accredited post-secondary institution must be provided at time of registration. Student rate not applicable, if documentation not accepted.)

Companion Package **$110**

Bring your partner or a friend to join the fun! The companion package includes: Friday evening Keynote, poster presentation and reception; Saturday evening reception, casino and murder mystery night.

Cancellations and Refunds

Full refunds are available through June 30, 2018

A $60 administration fee will be held from all refunds for cancellations received in writing from July 1 through September 7th. A $100 administration fee will be held from all refunds for cancellations received from September 8 through October 15, 2018. No refunds after October 15, 2018.

REGISTER ONLINE