



# How to Promote Sleep & Injury Prevention

September 21, 2019

9:00am – 12:30pm

Vancouver Convention Centre West  
Room 110

## Foreword

Injury is the leading cause of death in Canada among individuals ages 1–34 years of age. An average of 900 children and teens in British Columbia are hospitalized each year due to sports-related injuries.

Studies which have examined the effect of sleep deprivation on sport performance and injury risk among young athletes show that the amount of sleep affects risk factors for injury, with less than 8-hours sleep increasing injury risk by 30 to 70%.

Knowing that student athletes tend to sleep 2-hours less each night compared to non-athletes, it is necessary to highlight the importance of sleep for good health and injury prevention. However, most attempts to promote healthy sleep and sleep hygiene among children and youth over the past decade have led to disappointing results.

In this symposium, a transdisciplinary faculty consisting of athletes of all ages, and students and community/ university-based researchers, will share the latest research and discuss these issues with interested members of the public. This symposium will be of particular interest to high school and university students, trainers and teachers, and will review traditional and novel communication concepts, including youth-led participatory action initiatives designed to raise awareness about the effects of sleep deprivation and low vigilance on sport performance.

# Schedule:

Sleep Expo 2019  
Advancing Public Sleep Health

## Saturday, September 21, 2019

Introduction		
<b>Session 1</b>	'Sleep Deprivation = Alcohol Intoxication' & Injury Prevention <b>Student introduction</b> of speaker & short introduction to the topic  Sleep Deprivation: The Perspective from the Emergency Room & Sleep Medicine <b>Najib Ayas</b> (Canada)	<b>9:00–9:20am</b>
<b>Session 2</b>	Athletic Injuries <b>Student introduction</b> of speaker & short introduction to the topic  Active & Safe – The BC Injury Prevention Campaign <b>Sarah Richmond</b> (Canada)	<b>9:20–9:40am</b>
<b>Session 3</b>	Introduction by Chair: From 'Sleep to Vigilance' <b>Osman Ipsiroglu</b>  From Sleep Deprivation to Vigilance: A New Communication Concept? <b>Gerhard Kloesch</b> (Austria)	<b>9:40–10:00am</b>
<b>Session 4</b>	Student Presentations: Communication of Sleep Health via Vigilance Games & Scientific Background of the Games <b>Renee Boldut, Ruth Liu, Gemma Tomasky, Monica Hsu</b> (Canada)	<b>10:00–10:15am</b>
<b>Session Break</b>	What questions do you have for the upcoming round table	<b>10:15–10:40am</b>
<b>Session 5</b>	Introduction by Chair: Upcoming Challenges <b>Osman Ipsiroglu</b>  Youth, Sleep & Drugs: Vigilance Fluctuations <b>Pierre Philip</b> (France)	<b>10:40–11:00am</b>
<b>Session 6</b>	Introduction <b>Osman Ipsiroglu &amp; Nadia Beyzaei</b> (Moderators)  Kick-off: Risk-taking Behaviours <b>Mariana Brussoni</b> (Canada)  Round Table: Do We Need a New Communications Concept for Messaging the Importance of Sleep & Negative Aspects of Sleep Deprivation? <b>Dan Small</b> (Medical Anthropologist & Addiction Researcher, UBC) <b>Samantha Pritchard</b> (Manager, Sport Science & Sport Medicine, UBC) <b>Calvin Kuo</b> (Kinesiologist & Computer Scientist, UBC) <b>Angelika Schlarb</b> (Psychologist & Psychotherapist, University of Bielefeld)  Short statements by: <b>Pierre Philip; Najib Ayas; Gerhard Kloesch, Sarah Richmond</b>  Review by invited members of the community: What can I apply in the community today?	<b>11:05am–12:30pm</b>
<b>Take Home Messages</b> What can I apply today?		



## Osman Ipsiroglu

Symposium Chair

Osman Ipsiroglu, MD, PhD, Clinical Associate Professor, UBC. Based on my interest in adherence research, socio-cultural aspects of medicine and child-development, I initiated, in collaboration with medical anthropology and educational psychology, a comprehensive functional sleep/wake-behaviors assessment concept with focus on behaviors, applied in several international studies.

### Take home messages:

1. It's necessary to promote sleep, as the concept of sleep does not resonate in a 24/7 society.
2. Enhancing vigilance & optimizing performance may be a better way of communicating the importance of sleep.
3. Our question now is: How can we approach and review this game changer concept?

## Symposium Committee



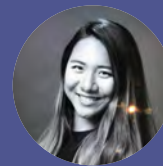
Renee Boldut



Ruth Liu



Gemma Tomasky



Monica Hsu



Nadia Beyzaei

# Introduction

# Session 1:



## Introduction by Gemma Tomasky & Ruth Liu

'Sleep Deprivation = Alcohol Intoxication'



## Najib Ayas Canada

Sleep Deprivation: The Perspective from the Emergency Room & Sleep Medicine

Dr. Ayas is an Associate Professor of Medicine at the University of British Columbia, and clinical staff at the Sleep Disorders Centre since 2002. He completed his Medical School in Alberta, his Internal Medicine Training at the Mayo Clinic, and a Respiratory/Critical Care Sleep Fellowship at Harvard Medical School. He has been actively involved in the clinical practice and research of sleep disorders since 1992, predominately focusing on the impact of sleep disorders on health, safety, and economics. He is currently an Executive Member of the Canadian Sleep Society, Head of the Canadian Thoracic Society Sleep Disordered Breathing Guidelines Committee, and Head of the American Thoracic Society SRN Planning Committee.

**Take home message:** Front line healthcare providers often work intense schedules and are at risk of sleep deprivation. Accumulating data suggests occupational and patient safety risks associated with these extreme schedules. There needs to be more recognition of these potential effects, and though potentially challenging, novel interventions are needed to mitigate these risks.

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# Session 2:



## Introduction by Monica Hsu

Athletic injuries



# Sarah Richmond Canada

Active & Safe – The BC Injury Prevention Campaign

Sarah A. Richmond works at Public Health Ontario and is an Assistant Professor in the Division of Epidemiology, Dalla Lana School of Public Health at the University of Toronto. Sarah is an Epidemiologist and Certified Exercise Physiologist with doctoral and post-doctoral training in injury prevention, with expertise in injury epidemiology, implementation science and knowledge translation.

**Take home messages:** Researchers should use an integrated knowledge translation approach in the development and evaluation of strategies to prevent sport injury. Integral to the development of effective strategies is the evidence at each stage of the public health approach to prevention including incidence/prevalence, risk factors, effective interventions, and information specific to intervention implementation and evaluation. Active & Safe Central ([www.activesafe.ca](http://www.activesafe.ca)) is an evidence-based, on-line resource for the prevention of sport injury that can be used by researchers, practitioners, coaches, athletes and parents.

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## Introduction by Osman Ipsiroglu

Vigilance: A New Communication Concept



# Gerhard Kloesch

## Austria

From Sleep Deprivation to Vigilance

Gerhard Kloesch, MPH, works at the Department of Neurology, Medical University of Vienna and is the scientific director of the postgraduate course Sleep-Coaching. His main interests are in the field of sleep-wake-rhythm research, vigilance and socio-cultural influences on sleep and dreaming. Gerhard Kloesch published four books on 'Pair-Sleep', 'Sleep-Coaching I & II', and 'Vigilance'.

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# Session 4:



## Renee Boldut

H-Behaviours Research Lab —Research Assistant

Renee is a first year undergraduate student in the Science One program at the University of British Columbia. Renee joined the H-Behaviours Research Lab in June 2018 as a high school volunteer at the Vancouver Summer Sleep School but is now a research assistant. During her time at the lab, Renee focused on investigating novel sleep health communication concepts and organizational work.

**Take home message:** Youth want to learn, but we want to learn in an interactive way. We must communicate sleep health to youth in a way which resonates and includes self-experiential learning. Successfully communicating sleep health to youth is crucial for our overall well being.



## Ruth Liu

H-Behaviours Research Lab —Directed Studies Student

Ruth Liu is a second year undergraduate student studying health sciences at McMaster University. Ruth joined the H-Behaviours Research Lab in May 2019 as a directed studies student as a part of the Vancouver Summer Sleep School. During her time at the lab, Ruth focused on developing the Vigilance Games “Vigilance-Pong” and “Task-Switching Paradigm”.

**Take home message:** Both sleep deprivation and alcohol intoxication negatively affect hand-eye coordination, and increase the risk of motor vehicle accidents. Furthermore, sleep deprivation is associated with risk-taking behaviours, similar behaviours are seen with alcohol intoxication. To effectively communicate sleep’s impact on cognitive skills and risk-taking behaviours in the context of motor vehicle accidents, we would like to bring into the spotlight the equation: “sleep deprivation=alcohol intoxication”.



## Gemma Tomansky

H-Behaviours Research Lab — Directed Studies Student

Gemma is an undergraduate student studying Kinesiology at the University of British Columbia. Gemma took part in the 2019 Vancouver Summer Sleep School program as a directed studies student at the H-Behaviours Research Lab. Within the lab, she investigated the relationship between sleep and concussion recovery as well as the Vigilance Game “Stroop Effect Test”.

**Take home message:** Motor vehicle crashes are a major international public health issue. There are many regulations and campaigns to caution drunk driving but less so for drowsy driving. To reduce the risk of fatal car crashes, we — youth and young adults — must develop a self-reflection strategy that allows drivers to re-evaluate how their performance is influenced by their sleep.




## Monica Hsu

H-Behaviours Research Lab — Directed Studies Student

Monica is an undergraduate student studying Integrated Sciences with a focus on oncology at the University of British Columbia. Monica took part in the 2019 Vancouver Summer Sleep School program as a directed studies student at the H-Behaviors Lab. Within the lab, she investigated the relationship between athletic injuries and sleep as well as the Vigilance 6 games “Baseball Tag” and “Relay Race”.

**Take home message:** Student-athletes often neglect sleep as a factor for their success. I personally used to prioritize training, studying and socializing over sleep, not realizing how detrimental it can be for my athletic performance. This has cost me greatly. Athletes, especially student-athletes must recognize the importance of sleep and prioritize it as part of our training.



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What questions do you have for the upcoming  
round table discussion?

**Session Break**

# Session 5:



**Introduction by Osman Ipsiroglu**  
Upcoming Challenges



## Pierre Philip France

Youth, Sleep & Drugs: Vigilance Fluctuations

Professor Philip is a sleep specialist working at the University of Bordeaux, France. He runs a research laboratory (CNRS) specialized in sleep deprivation, sleepiness, sleep disorders and cognitive performances. He has been working extensively on the risk of sleepiness at the wheel to define at risk populations and optimized counter measures to prevent motor vehicle accidents and occupational injuries.

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# Round Table Discussion

# Session 6:



**Introduction by Osman Ipsiroglu & Nadia Beyzaei**  
Round table Moderators



## **Mariana Brussoni** Canada

Developmental Psychologist UBC

Dr. Mariana Brussoni is a developmental psychologist and Associate Professor in the Department of Pediatrics and the School of Population and Public Health at the University of British Columbia. She is an investigator with the British Columbia Children's Hospital Research Institute and the British Columbia Injury Research & Prevention Unit.

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# Dan Small

## Canada

Medical Anthropologist & Addiction Researcher, UBC

Dan Small is a medical anthropologist at UBC where he teaches in both sociology and anthropology. He has developed a range of healthcare, housing and social enterprises for marginalized populations including: North America's first supervised injection facility (Insite), a community grocery store, inner city bank, art gallery, harm reduction (e.g. syringe distribution, supervised injection, safer crack kits, managed alcohol, intravenous antibiotic treatment and a drug users resource centre), a dental clinic, detox and East Van Roasters chocolate shop for women in recovery. He has also been involved in medical regulation and medical student assessment through the College of Physicians and Surgeons of BC (2000-2014) and Medical Council of Canada (2007-2014). This work speaks to his interest in self-governed medical culture and the process by which students are socialized into physicians.

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# Samantha Pritchard

## Canada

Manager, Sport Science & Sport Medicine, UBC

Samantha Pritchard is the Senior Manager of Sport Science and Sport Medicine for the department of Athletics and Recreation at UBC. In her role, Samantha is responsible for the develop and implementation of strategic initiatives to support the health and performance of over 650 athletes across 25 varsity teams. This includes implementation of new technologies, engaging in research initiatives, and developing guidelines and educational material based on current evidence for coaches and athletes.

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# Calvin Kuo Canada

Kinesiologist & Computer Scientist, UBC

Calvin received his Bachelor's of Science in Mechanical Engineering and Computer Science from the California Institute of Technology in 2011. Thereafter, he worked for NASA's Jet Propulsion Laboratory in Pasadena CA as a software engineer in the robotics section where he simulated spacecraft and terrestrial rovers for NASA missions and DARPA robotics projects.

In 2013, he began his graduate education at Stanford University in the department of Mechanical Engineering. In 2015, he received his Master's of Science and in 2018, his PhD under the supervision of professors David Camarillo and Scott Delp.

His research interests have varied over the years, ranging from modeling and control of synthetic systems (robots) to modelling and control of biological systems (humans). Calvin starts his postdoc at the University of British Columbia under the supervision of professors Jean-Sebastien Blouin in Kinesiology and Dinesh Pai in Computer Science, investigating how inputs from different sensory systems are combined to efficiently and accurately provide feedback for balance and postural control.

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# Angelika Schlarb Germany

Psychologist & Psychotherapist, University of Bielefeld

Professor of Clinical Psychology and Psychotherapy for Children and Adolescents. Sleep and sleep disorders over the life span. Sleep treatment for infants, toddlers and adolescents and university students, CBT-I expert.

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What are your main take aways from today's sessions?

# Take Home Messages



# SLEEP EXP<sup>o</sup> 2019

Advancing Public Sleep Health • September 21-22, 2019 • Vancouver, Canada



**learn more.**  
**visit** [sleepnetwork.org](https://sleepnetwork.org)