

PREMUS2016

TORONTO

Preventing work-related musculoskeletal disorders in a global economy

Conference Program

June 20-23, 2016

Allstream Centre

Toronto, Canada

premus2016.iwh.on.ca



WiFi

WiFi is available throughout the Allstream Centre during the conference.

Network name: Allstream

Conference program

This conference program is also available online: premus2016.iwh.on.ca

#PREMUS2016

Use this hashtag to tweet about the PREMUS 2016 conference

Cellphone use

As a courtesy to speakers and other delegates, please ensure your mobile phone and other electronic devices are in silent/vibrate mode or switched off before entering sessions.

Hosted by



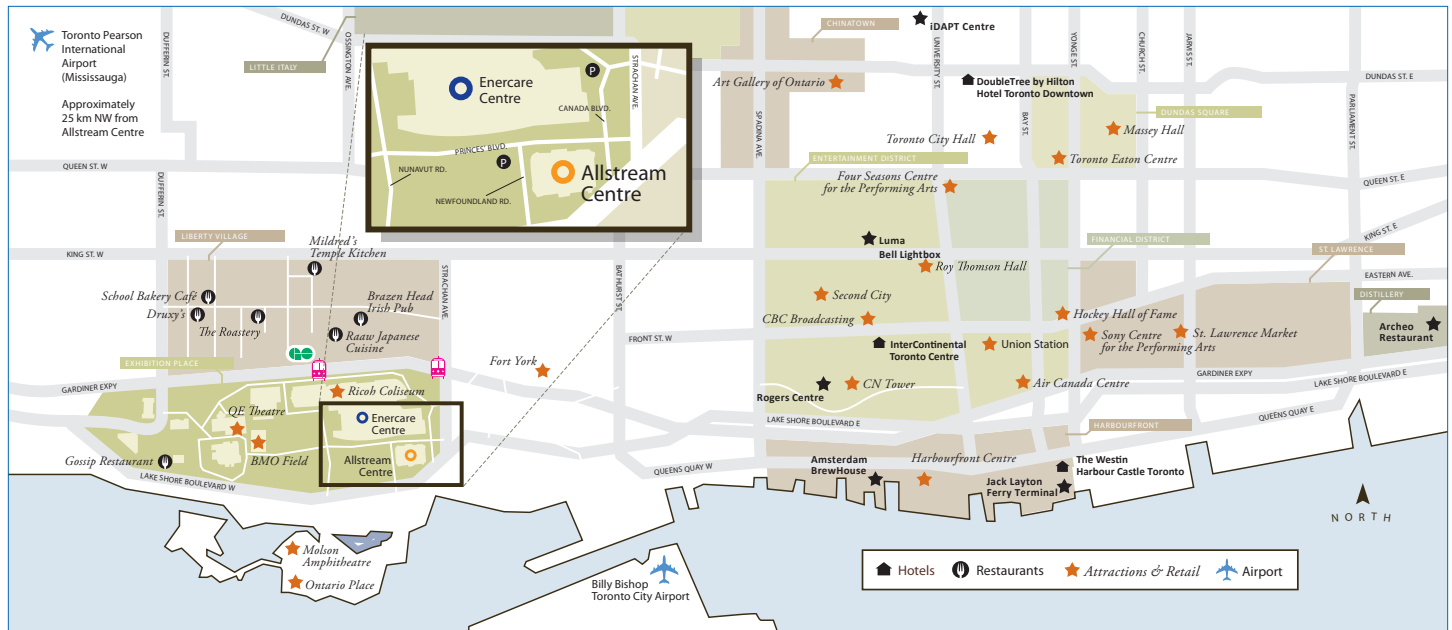
Institute
for Work &
Health

Research Excellence
Advancing Employee
Health

481 University Ave., Suite 800
Toronto, Canada M6K 2E9

www.iwh.on.ca

Key locations at a glance



Allstream Centre

Exhibition Place
105 Princes' Blvd.
Toronto, ON
M6K 3C3

InterContinental Toronto Centre

225 Front St. W.
Toronto, ON
M5V 2X3

DoubleTree by Hilton Hotel Toronto Downtown

108 Chestnut St.
Toronto, ON
M5G 1R3

Westin Harbour Castle Toronto

1 Harbour Square
Toronto, ON
M5J 1A6

Luma

TIFF Bell Lightbox
350 King St W.
Toronto, ON
M5V 3C6

Amsterdam BrewHouse

245 Queens Quay W.
Toronto, ON
M5J 2K9

Rogers Centre

1 Blue Jays Way
Toronto, ON
M5V 1J1

iDAPT Centre

550 University Ave.
Toronto, ON
M5G 2A2

Archeo

Distillery District
31 Trinity St.
Toronto, ON
M5A 3C4

Jack Layton Ferry Terminal

9 Queens Quay W.
Toronto, ON
M5J 2H3

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Welcome

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Greetings from the Ontario Minister of Labour

Dear Attendees,

As Minister of Labour, and on behalf of the ministry, I am very pleased to extend a warm welcome to everyone in attendance at the 9th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders (PREMUS), hosted by the Institute for Work & Health.

Since 1992, PREMUS has brought together scientists, students, practitioners in occupational health and safety, epidemiologists, ergonomists, industrial engineers, clinicians and policy-makers to promote research and utilize that knowledge to improve workplace health and safety.

I am delighted to inform you that my ministry's ergonomists are also in attendance at this conference, and my ministry looks forward to learning and benefiting from the latest developments in the field of musculoskeletal disorder prevention. The Ministry of Labour has an unflinching dedication to fair, safe and harmonious workplaces in Ontario, and with your valued support and collaboration, our government will continue to build a thriving and vibrant province.

Every person who works deserves to go home safe at the end of each day, and every person here today has a role to play in making this goal a reality. To the many professions represented and professionals in attendance at this dynamic conference, I offer my sincere thanks for all your efforts in helping to keep workers safe on the job.

Please accept my sincere best wishes for a safe, healthy and informative conference.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kevin Flynn', with a stylized flourish at the end.

Kevin Flynn
Ontario Minister of Labour

Greetings from the Institute for Work & Health

Dear Participants in PREMUS 2016,

Welcome to Toronto! The Institute for Work & Health is delighted to host PREMUS 2016, the 9th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders.

The conference will bring together about 400 delegates from over 30 countries for four days of scientific exchange. PREMUS 2016 takes place at the Allstream Centre, a stunning and historic Art Deco building that was renovated to house a modern and ergonomic event facility, with state-of-the-art technology.

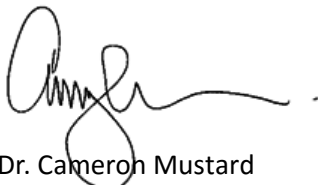
Every three years since 1992, PREMUS has gathered together scientists, students, practitioners in occupational health & safety, epidemiologists, ergonomists, industrial engineers, clinicians and policy-makers, with the goal of promoting multidisciplinary research and the translation of that research into applicable use.

PREMUS 2016 offers an exciting program of keynote presentations, symposium sessions, and hundreds of oral and poster presentations.

The Institute for Work & Health has had a longstanding focus on work-related musculoskeletal disorders (MSDs), and we are proud to continue PREMUS's more-than-20-year history as an international platform for the exchange of knowledge and expertise in MSD research and intervention practice related to the prevention of work-related MSDs.

Toronto is a vibrant, cosmopolitan city that draws people from all over the world, and I hope you take some time to explore and savour it. I look forward to seeing you at the welcome reception on the evening of June 19 at the home of the Toronto International Film Festival.

Enjoy the conference!



Dr. Cameron Mustard
President and Senior Scientist
Institute for Work & Health

Greetings from the PREMUS 2016 organizers

Dear Participants in PREMUS 2016,

On behalf of the Scientific Committee and the Hosting Committee of PREMUS 2016, we offer our warm welcome to the 9th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders.

PREMUS brings together researchers, occupational health and safety professionals, and policy-makers to share information on the latest research on musculoskeletal disorder (MSD) prevention, and to foster collaboration across disciplines and between researchers and stakeholders in new studies, so that progress may continue in reducing the incidence of work-related MSDs.

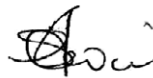
The conference program offers a rich array of opportunities for learning and dialogue, including four pre-conference workshops on Sunday, June 19. We have four exciting keynote presentations on key issues in MSD research, over 360 oral presentations across 31 symposia and 64 themed sessions, and over 60 posters.

We also have a varied social program that includes tours of the remarkable simulation lab at the Toronto Rehabilitation Institute, as well as some fun events like a Blue Jays baseball game, a tour of a local microbrewery, a visit to the Toronto Islands, and dinner in Toronto's famous Distillery District.

We are excited about the program and look forward to seeing you at the conference. If you have any questions while you are here, do not hesitate to ask us or to stop by the information desk at the Allstream Centre.



Ben Amick
Chair, Scientific Committee



Emma Irvin
Co-Chair, Hosting Committee



Ron Saunders
Co-Chair, Hosting Committee

Scientific committee



Ben Amick (Chair)

Senior Scientist, Institute for Work & Health, Toronto, Canada
Director of Public Health, Professor and Chair, Department of Health Policy and Management, Florida International University, Miami, U.S.A.

Alexis Descatha

Professor and Head, Occupational Health Unit, Inserm, University of Versailles Saint-Quentin-en-Yvelines (UVSQ), Raymond Poincaré University Hospital, Garches, France

Allard van der Beek

Professor, Occupational Epidemiology, Vice-Head, Department of Public and Occupational Health, Co-Director, Musculoskeletal Health Research Program, EMGO Institute for Health and Care Research, VU University Medical Center, Amsterdam, The Netherlands

Alysha Meyers

Epidemiologist, Division of Surveillance, Hazard Evaluations and Field Studies, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, Cincinnati, U.S.A.

Bradley Evanoff

Professor, Internal Medicine, Director, Division of General Medical Sciences, Director, Institute of Clinical and Translational Sciences, Assistant Dean for Clinical and Translational Research, Washington University School of Medicine, St. Louis, U.S.A.

Catherine Trask

Canada Research Chair in Ergonomics and Musculoskeletal Health
Assistant Professor, Canadian Centre for Health and Safety in Agriculture (CCHSA), University of Saskatchewan, Saskatoon, Canada

David Douphrate

Assistant Professor of Epidemiology, Human Genetics and Environmental Sciences, School of Public Health, University of Texas, San Antonio, U.S.A.

David Rempel

Professor Emeritus of Medicine, Division of Occupational and Environmental Health, University of California at San Francisco, Professor of Bioengineering, University of California at Berkeley, Richmond, Calif., U.S.A.

Deepak Sharan

Owner and Medical Director, RECOUP Neuromusculoskeletal Rehabilitation Centre, Bangalore, India



Dongmug Kang

Professor and Director, Department of Preventive and Occupational Medicine, School of Medicine, Pusan National University, Yangsan, Korea

Edgar Ramos Vieira

Assistant Professor, Department of Physical Therapy, Florida International University, Miami, U.S.A.

Eira Viikari-Juntura

Research Professor and Director, Disability Prevention Research Centre, Finnish Institute of Occupational Health, Helsinki, Finland

Francesco Violante

Professor, Department of Medical and Surgical Sciences, University of Bologna, Bologna, Italy

Jack Dennerlein

Professor, Department of Physical Therapy, Movement & Rehabilitation Science, Bouvé College of Health Sciences, Northeastern University, Boston, U.S.A.

Jim Potvin

Professor, Department of Kinesiology, McMaster University, Hamilton, Canada

Judith Gold

Data Scientist and Epidemiology Consultant, Gold Standard Research Consulting, Philadelphia, Pa., U.S.A.

Laura Punnett

Professor of Work Environment, Co-Director, Center for the Promotion of Health in the New England Workplace, Leadership Team, Center for Women and Work, University of Massachusetts Lowell, Lowell, Mass., U.S.A.

Lope H. Barrero

Associate Professor, Department of Industrial Engineering, Pontificia Universidad Javeriana, Bogota, Colombia

**Mats Hagberg**

Professor, Department of Public Health and Community Medicine, University of Gothenburg, Chief Physician, Department of Occupational & Environmental Medicine, Sahlgrenska University Hospital, Gothenburg, Sweden

Monique Frings-Dresen

Professor of Occupational Health and Medicine, Principal Investigator, Coronal Institute of Occupational Health, Academic Medical Center, Amsterdam, The Netherlands

Richard Wells

Professor of Kinesiology, Director, Centre of Research Expertise for the Prevention of Musculoskeletal Disorders (CRE-MSD), University of Waterloo, Waterloo, Ont., Canada

**Roberta Bonfiglioli**

Associate Professor, Department of Medical and Surgical Sciences, University of Bologna, Bologna, Italy

Sandra Brouwer

Professor of Health Sciences, Community and Occupational Medicine, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands

Stephen Hudock

Manager, Musculoskeletal Disorders Health and Safety Cross-Sector, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, Cincinnati, U.S.A.

**Susan Stock**

Head, Scientific Group on Work-Related Musculoskeletal Disorders, Institut National de Santé Publique du Québec, Montreal, Canada

Thomas Behrens

Professor, Institute for Prevention and Occupational Medicine of the German Social Accident Insurance, Institute of the Ruhr University of Bochum, Bochum, Germany

Yves Roquelaure

Laboratory of Ergonomics and Occupational Health, University of Angers, Centre Hospitalier Universitaire (CHU), Angers, France

Hosting committee

The members of the hosting committee are all based at the host organization, the Institute for Work & Health (IWH).



Ben Amick
Chair, Scientific Committee
Senior Scientist, IWH

Emma Irvin
Co-Chair, Hosting Committee
Director of Research Operations, IWH

Ron Saunders
Co-Chair, Hosting Committee
Senior Scientist and Director of Knowledge Transfer and Exchange, IWH

Siobhan Cardoso
Event Planner
Knowledge Exchange Associate, IWH

Sara Macdonald
Chair, Hospitality Subcommittee
Knowledge Exchange Associate, IWH

Cindy Moser
Chair, Communications Subcommittee
Communications Manager, IWH

Jan Dvorak
PREMUS Website & Design Coordinator
Website and Design Coordinator, IWH

Uyen Vu
PREMUS Media Relations
Communications Associate, IWH

About the host organization



The PREMUS Hosting Committee would like to thank the many volunteers from the Institute for Work & Health who have graciously offered their time to help with onsite logistics at the conference.

The Institute for Work & Health (IWH) is an independent, not-for-profit organization based in Toronto, Canada. Its mission is to promote, protect and improve the safety and health of working people by conducting actionable research that is valued by employers, workers and policy-makers.

The Institute's research is driven by two broad goals. The first is to **protect workers** by studying the prevention of work-related injury and illness, which includes research on workplace programs, prevention policies and the health of workers at a population level. The second is to **improve the health and recovery of injured workers**, which includes research on treatment, return to work, disability prevention and management, and compensation policies.

IWH's work environment is unique. Scientists from different disciplines work collaboratively with each other and with the knowledge transfer and exchange staff. IWH also works closely with external partners to help ensure its research has value in real-world settings.

Described as one of the top five occupational health and safety research centres in the world, IWH was founded just over 25 years ago, in 1990. The Institute operates with core funding from the Province of Ontario, under the stewardship of the Ontario Ministry of Labour (MOL). Prior to 2013, the Institute operated with core funding support from Ontario's Workplace Safety and Insurance Board (WSIB).

Partners

PREMUS 2016 is grateful for the support of the following partners. Many will have displays at the conference, located at the back of Ballroom B in the Allstream Centre.



Ontario Ministry of Labour
Lead Partner

The Ministry of Labour's mission is to advance safe, fair and harmonious workplace practices that are essential to the social and economic well-being of the people of Ontario. Through the Ministry's key areas of occupational health and safety, employment rights and responsibilities, and labour relations, the Ministry's mandate is to set, communicate and enforce workplace standards while encouraging greater workplace self-reliance. The Ministry also develops, coordinates and implements strategies to prevent workplace injuries and illnesses and can set standards for health and safety training.



Provincial Building and Construction Trades Council
of Ontario
Platinum Partner

The Provincial Building and Construction Trades Council of Ontario is an organization that represents 13 craft unions in the construction sector, totalling 150,000 workers throughout the province. Its mission is to give construction workers a collective voice in the workplace, to help ensure that workers are well-trained to meet industry needs, and to promote healthy and safe work conditions with decent wages, pensions and benefits. Part of its success stems from the effective partnerships it has established with its signatory contractors and owner-clients who work with the Council's affiliates to achieve public and private infrastructure needs in seven bargaining sectors: industrial, commercial, and institutional (ICI); electrical power systems (EPSCA); residential; heavy engineering; roads; sewers and water mains; and pipelines. The Council also works with provincial government ministries and agencies to ensure that the construction industry is well-regulated, competitive, well-resourced and safe.



CIHR Institute of Musculoskeletal Health and Arthritis *Partner*

The Canadian Institutes of Health Research (CIHR) is an independent agency of Canada's federal government that provides leadership and support to health researchers and trainees across Canada through 13 institutes. The Institute of Musculoskeletal Health and Arthritis (IMHA) supports research to enhance active living, mobility and movement, and oral health; and addresses causes, prevention, screening, diagnosis, treatment, support systems and palliation for a wide range of conditions related to bones, joints, muscles, connective tissue, skin and teeth.



CIHR Institute of Gender and Health *Partner*

The Canadian Institutes of Health Research (CIHR) is an independent agency of Canada's federal government that provides leadership and support to health researchers and trainees across Canada through 13 institutes. The Institute of Gender and Health (IGH)'s mission is to foster research excellence regarding the influence of gender and sex on the health of women and men throughout life, and to apply these research findings to identify and address pressing health challenges.



Fanshawe College
Partner

Fanshawe College is a comprehensive college based in London, Ontario. It offers more than 200 degree, diploma, certificate and apprenticeship programs to 43,000 students each year, helping people achieve success in a variety of disciplines including applied arts, business, health care, human services, hospitality and technology. In Fall 2016, Fanshawe is introducing a full-time graduate program in Advanced Ergonomic Studies. This intensive program is being delivered in two 15-week semesters and one eight-week placement. It provides the discipline-specific knowledge, skills and experience required for the Associate Ergonomist designation from the Canadian College for the Certification of Professional Ergonomists.



International Commission on Occupational Health
Partner

The International Commission on Occupational Health (ICOH) is an international non-governmental professional society whose aims are to foster the scientific progress, knowledge and development of occupational health and safety in all its aspects. Today, ICOH is the world's leading international scientific society in the field of occupational health with a membership of 2,000 professionals from 93 countries. ICOH is recognized by the United Nations as a non-governmental organization (NGO) and has close working relationships with the International Labour Organization (ILO), World Health Organization (WHO), United Nations Environment Programme (UNEP) and the International Social Security Association (ISSA). PREMUS is the primary conference of ICOH's Musculoskeletal Disorders Scientific Community.



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Keynote speakers



Monday, June 20, 8:30-10:00am, Ballroom B

Dr. Bradley Evanoff

NIOSH Upper Limb Musculoskeletal Disorder Consortium: What did we learn about carpal tunnel syndrome, and what should we do next?

Most studies of upper extremity musculoskeletal disorders (MSDs) among workers are limited by small sample sizes or restricted to a small subset of jobs. To overcome this, six U.S. research centres pooled data from their prospective studies of musculoskeletal outcomes, in what's known as the Upper Limb Musculoskeletal Disorder Consortium. The consortium is a collaborative research program initiated by the U.S. National Institute for Occupational Safety and Health (NIOSH) in 2000.

Dr. Bradley Evanoff will share what the consortium has learned about the risk factors for carpal tunnel syndrome. Following 4,300 workers from more than 50 workplaces for at least three years, the consortium uses pooled data making it the largest study of carpal tunnel syndrome to date. Evanoff will discuss what we now know about the risk factors for carpal tunnel syndrome and what they mean for the future prevention of this painful condition among workers.

***Dr. Bradley Evanoff** is Director of the Division of General Medical Sciences, Director of the Institute of Clinical and Translational Sciences and Assistant Dean for Clinical and Translational Research at the Washington University School of Medicine in St. Louis, U.S.A. He's also the Richard A. and Elizabeth Henby Sutter Professor of Occupational and Environmental Medicine. His research in occupational health is primarily focused on the epidemiology and prevention of work-related musculoskeletal disorders, work-related health problems in health-care workers, and the evaluation of occupational medical education.*



Tuesday June 21, 8:30-10:00am, Ballroom B

Dr. Linda Goldenhar

Making a positive difference in construction safety and health by improving safety culture, safety climate and safety leadership

You might not expect to be talking about safety climate, safety culture and safety leadership when you're developing a workplace or research program into preventing musculoskeletal disorders in the construction sector. But the link between the two is much greater than you might think, argues Dr. Linda Goldenhar.

Goldenhar will talk about the research that led her and her team to develop a safety climate leading indicator workbook and measurement tool that contractors, safety and health professionals and others could implement to reduce MSDs and other work-related injuries in the construction sector and beyond.

Dr. Linda Goldenhar is a behavioural scientist who has worked for many years in the area of occupational safety and health, in particular construction safety and health. She is Director of Research and Evaluation at CPWR—the Center for Construction Research and Training based in Silver Springs, Md., U.S.A. As the National Construction Center for NIOSH, CPWR conducts industry-driven research on existing and emerging hazards to better understand the risks, analyze and interpret key data, and find practical solutions and approaches to protect workers. CPWR research is undertaken by staff researchers and a consortium of external researchers from leading academic institutions, non-profit organizations, government agencies and industry with specific expertise in the hazards, injuries and illnesses facing construction workers.



Wednesday June 22, 8:30-10:00am, Ballroom B

Dr. Jack Callaghan

Sitting to death—or at least until we're injured

The health risks linked with prolonged sitting continue to be a hot topic in the media. But what do we know about prolonged sitting as an injury risk to the low back? As we demonize sitting in favour of standing, and as sit-stand stations become more common in workplaces, what do we know about the risk of low-back injury associated with prolonged standing? Is there an optimal amount of time workers should be sitting and standing to reduce their risk of low-back injury and improve their health?

According to Dr. Jack Callaghan, a long-time researcher on the link between sitting and low-back pain, the answers to these questions lie in understanding the mechanisms of injury associated with low-back pain—how tissues in the back become injured and generate pain, and how the spine experiences loads in different activities.

Callaghan will talk about his research program that seeks to understand how exposure to a variety of factors initiates and exacerbates low-back injury. He will share what he has learned about how to assess daily loading on the back and how to set workplace exposure limits to prevent low-back injuries, including limits for sitting and standing on the job—and the optimal mix between the two.

Dr. Jack Callaghan, who holds a Canada Research Chair in Spine Biomechanics and Injury Prevention, is a Professor in the Department of Kinesiology, Faculty of Applied Health Sciences at the University of Waterloo in Waterloo, Ont., Canada. He's also the Director of Research for the Centre of Research Expertise for the Prevention of Musculoskeletal Disorders (CRE-MSD). His research program into the mechanisms of injury associated with low-back pain combines a fundamental in-vitro research approach (i.e. examining the response of the lumbar spine tissues) with human research (i.e. examining how exposure to a variety of factors initiate and exacerbate low-back injuries). It also involves the development of methods to assess daily loading on the back and to set workplace exposure limits as preventive measures.



Thursday June 23, 8:30-10:00am, Ballroom B

Dr. Julie Côté

Can using a sex/gender lens provide new insights into MSD mechanisms?

Evidence shows that women are twice as likely as men to injure their neck or shoulder due to sustained, repetitive movements at work. Do sex (biological) and/or gender (psychosocial) differences account for this increased risk among women? For example, are the different ways men and women control movement, react to work exposures and respond to muscle fatigue responsible?

Dr. Julie Côté will tackle these questions as she looks at the implications of applying a “sex” or “gender” lens to research into the mechanisms of work-related MSDs. She will talk about her work that aims to develop a better understanding of sex- and gender-sensitive mechanisms for identifying MSDs of the neck and shoulder. Côté will also explain why this work is improving our understanding of the intervention strategies needed to make a difference and, in turn, is leading to the creation of more effective programs to prevent the development of neck and shoulder injuries in both men and women.

***Dr. Julie Côté** holds one of nine Canadian Institutes of Health Research (CIHR) Research Chairs in Gender, Work & Health. The objectives of the chair program are to support leading researchers as they: develop programs of research in gender, work and health; build capacity for research on work and health that accounts for gender and sex; and foster the translation of that research into gender- and sex-sensitive policies and interventions that improve workers' health. Côté has recently been appointed Chair of McGill University's Department of Kinesiology and Physical Education. She is also Director of the Department's Occupational Biomechanics and Ergonomics Lab (OBEL) and has been the Faculty of Education's Associate Dean for Research and Graduate Studies since 2013. Her research focuses on the biomechanics and motor control aspects of fatigue and pain, interventions to prevent work-related musculoskeletal disorders, and promoting workplace health for men and women.*

Themes

PREMUS 2016 includes over 360 oral presentations delivered in 31 symposia and 64 sessions, as well as over 60 poster presentations. Each symposium includes presentations that address a particular question or issue involving work-related musculoskeletal disorders (MSDs). The oral and poster presentations are grouped into one of eight themes, as follows.

1: Emerging issues in the prevention and management of work-related MSDs

Research is constantly bringing to light new problems, challenges and solutions in the world of work-related musculoskeletal disorders. The presentations in this theme talk about these emerging issues, whether they address new assessment methods, new prevention practices or new research challenges.

2: Field evaluations of MSD prevention policies, programs and practices

These presentations look at the process and impact of implementing MSD prevention policies, programs and practices in the “real world” in specific types of workplaces and among certain occupational groups. For example, the studies look at interventions in workplaces ranging from hospitals and manufacturing facilities to offices and construction sites. They look at interventions for occupations ranging from daycare workers and bakers to truck drivers and dockworkers.

3: Biology of work-related MSDs

Presentations under this theme look at MSDs from a biological and medical point of view. They deal with the workings of muscles, joints and nerves, and how they are affected by the way work is done. They look at subjects such as MSD biomarkers, treatment protocols, disc degeneration, pain and more.

4: Measuring exposures in a new world of work

Determining what tools and measures to use, and how to use them, to assess the impact of work on musculoskeletal systems is the subject of presentations under this theme. They look at measuring a wide range of MSD-related issues: from assessing the physical and mental symptoms of musculoskeletal injuries to quantifying the degree of exposure to job hazards such as whole body vibration and physical workloads.

5: Epidemiology of work-related MSDs

What are the patterns, causes and effects of work-related MSDs among groups of people—whether defined by occupation, industry or geographical location? This is the question at the heart of presentations under this theme. Topics range from the prevalence of and risk factors for MSDs, to surveillance methods and cohort characteristics.

6: Health disparities and globalization

Presentations under this theme seek to explore how work-related MSDs differently affect groups of people because of a shared defining characteristic. These characteristics range from gender to unionization to country of origin.

7: Economic burden of work-related MSDs

How much do work-related MSDs cost? How much do they cost a certain workplace or occupational sector or country as a whole? Presentations in this session attempt to answer questions like these by putting a dollar value on the personal, workplace and social losses associated with MSDs, or simply on the cost of interventions designed to prevent MSDs.

8: Management of work-related MSDs and sustainable employment

How to best rehabilitate injured workers with MSDs and help them recover and return to work safely are the issues addressed by presentations in this theme. Presentations cover issues from vocational rehabilitation programs to prognostic factors to ergonomic interventions.

Monday, June 20

7:30 - 8:30am	Registration / Breakfast
8:30 - 10:00am	Opening Remarks / Keynote Speaker: Dr. Bradley Evanoff
10:00 - 10:30am	Break
10:30am - 12:00pm	Symposia and Sessions
12:00 - 1:30pm	Lunch / Scientific Committee Lunch in Room 204B
1:30 - 3:00pm	Symposia and Sessions
3:00 - 3:30pm	Break
3:30 - 5:00pm	Symposia and Sessions
5:00pm onwards	Social Events: iDAPT Tour (5:40pm), Brewery Tour (5:45 and 6:00pm), Toronto Islands Tour (6:00pm)

Location	10:30am - 12:00pm	1:30 - 3:00pm	3:30 - 5:00pm
Ballroom B	Symposium 1 When do scientific reviews have an impact on enterprise or public policy? Chair: David Rempel	Symposium 3 Using job-exposure matrices to determine the impact of physical workload on workers' musculoskeletal health: challenges and opportunities (Part 1) Chair: Nils Fallentin	Symposium 6 Using job-exposure matrices to determine the impact of physical workload on workers musculoskeletal health: challenges and opportunities (Part 2) Chair: Nils Fallentin
201A	Emerging issues (<i>Session 1</i>) Moderator: Annette Leclerc		Emerging issues (<i>Session 3</i>) Moderator: Dwayne Van Eerd
201B	Field evaluations (<i>Session 1</i>) Moderator: Dongmug Kang	Field evaluations (<i>Session 2</i>) Moderator: Lope H. Barrero	Field evaluations (<i>Session 3</i>) Moderator: Allard van der Beek
201C	Biology (<i>Session 1</i>) Moderator: Edgar Ramos Vieira	Emerging issues (<i>Session 2</i>) Moderator: Stephen Hudock	Emerging issues (<i>Session 4</i>) Moderator: Dorcas Beaton
202A	Measuring exposures (<i>Session 1</i>) Moderator: Jack Dennerlein	Measuring exposures (<i>Session 3</i>) Moderator: Mats Hagberg	Measuring exposures (<i>Session 4</i>) Moderator: Jim Potvin
202B	Measuring exposures (<i>Session 2</i>) Moderator: Alexis Descatha	Symposium 4 Musculoskeletal and venous disorders in standing work: risk factors and perspectives for future prevention (Part 1) Chair: Benjamin Steinhilber	Symposium 7 Musculoskeletal and venous disorders in standing work: risk factors and perspectives for future prevention (Part 2) Chair: Benjamin Steinhilber
203A	Symposium 2 Evaluation of MSD biomechanical risk factors: the use of inertial sensors Chair: Adriana Sevescu	Symposium 5 Efficient assessment of physical workload Chair: Marina Heiden	Symposium 8 Efficient assessment of physical workload Chair: Marina Heiden
203B	Epidemiology (<i>Session 1</i>) Moderator: Alysha Meyers	Epidemiology (<i>Session 3</i>) Moderator: Bradley Evanoff	Epidemiology (<i>Session 5</i>) Moderator: Alexis Descatha
204A		Epidemiology (<i>Session 4</i>) Chair: David Rempel	Management and sustainable employment (<i>Session 1</i>) Moderator: Richard Wells
204C	Health disparities (<i>Session 1</i>) Moderator: Judith Gold	Economic burden (<i>Session 1</i>) Moderator: Monique Frings-Dresen	Management and sustainable employment (<i>Session 2</i>) Moderator: Emma Irvin

Monday, June 20

10:30am - 12:00pm

Ballroom B

Symposium 1 – When do scientific reviews have an impact on enterprise or public policy?

Chair: David Rempel, Professor Emeritus of Medicine, Division of Occupational and Environmental Medicine, University of California at San Francisco, Richmond, Calif., U.S.A.

Impact of OHS systematic reviews: a Canadian perspective
Emma Irvin, Director of Research Operations, Institute for Work & Health, Toronto, Canada

Knowledge translation at the Liberty Mutual Research Institute for Safety
Ian Noy, Director, Liberty Mutual Research Institute for Safety, Hopkinton, Mass., U.S.A.

The impact of a scientific review on return to work: the Danish experience.
Ole Mortensen, Professor, Department of Occupational Medicine, Copenhagen University Hospital, Holbæk, Denmark

The impact of reviews summarizing the state-of-the-art regarding the relation between occupational hazards and musculoskeletal disorders on national policy in the Netherlands
Allard van der Beek, Professor and Department Vice-Head, EMGO Institute for Health and Care Research, VU University Medical Centre, Amsterdam, The Netherlands

Case studies: reports from the U.S. National Academy of Sciences
David Rempel, Professor Emeritus of Medicine, Division of Occupational and Environmental Medicine, University of California at San Francisco, Richmond, Calif., U.S.A.

Room 201A

Emerging issues in the prevention and management of work-related MSDs – Session 1

Moderator: Annette LeClerc, Researcher, Inserm, Villejuif, France

Movement variability highlighted during an assembly activity

Martine Annie Gilles, Research Fellow, Working Life, Department Occupational Physiology Lab, French National Institute on Security and Occupational Health (INRS), Vandoeuvre, France

An econometric analysis of variability in net costs of a safe resident handling program in a chain of nursing homes
Supriya Lahiri, Professor, Department of Economics, University of Massachusetts Lowell, Lowell, Mass., U.S.A.

An investigation of alternative work methods for emergency dispatch workers
Carolyn Sommerich, Associate Professor, Department of Integrated Systems Engineering, Ohio State University, Columbus, Ohio, U.S.A.

An evaluation of interventions to prevent and manage musculoskeletal discomfort in global corporate offices
Kishore Madhwani, Hindustan Unilever Limited, Mumbai, Maharashtra, India

Monday, June 20

10:30am - 12:00pm

Room 201B

Field evaluations of MSD prevention policies, programs and practices – Session 1

Moderator: Dongmug Kang, Professor and Director, Preventive and Occupational Medicine, Pusan National University School of Medicine, Yangsan, South Korea

How should job rotation be designed for manufacturing industrial workers? A systematic review

Maria Luiza Caires Comper, Doctoral Candidate, Physical Therapy, Universidade Cidade de São Paulo, São Paulo, Brazil

The effectiveness of job rotation to prevent work-related musculoskeletal disorders: a cluster randomized clinical trial

Maria Luiza Caires Comper, Doctoral Candidate, Physical Therapy, Universidade Cidade de São Paulo, São Paulo, Brazil

Evaluation of an ergonomic intervention in Swedish flight baggage handlers

Eva Bergsten, PhD Candidate, Department of Occupational and Public Health Sciences, University of Gävle, Gävle, Sweden

Room 201C

Biology of work-related MSDs – Session 1

Moderator: Edgar Ramos Vieira, Assistant Professor, Department of Physical Therapy, Florida International University, Miami, U.S.A.

Finger flexor tendon orientation as a function of forearm and wrist postural change

Elizabeth A. Salas, PhD Candidate, School of Kinesiology and Health Science, York University, Toronto, Canada

Simultaneous activation of the trapezius and serratus anterior muscles in different positions for sEMG normalization

Leticia Bergamin Januario, PhD Student, Federal University of São Carlos, São Carlos, Brazil

Optimal elbow angle for typing on a tablet

Jangwhon Yoon, Assistant Professor, Department of Physical Therapy, Hoseo University, Cheonan, South Korea

The effect of full finger flexion on the deformation of median nerve at carpal tunnel

Ping Yeap Loh, PhD Student, Department of Human Science, Kyushu University, Fukuoka, Japan

Monday, June 20

10:30am - 12:00pm

Room 202A

Measuring exposures in a new world of work – Session 1

Moderator: Jack Dennerlein, Professor, Department of Physical Therapy, Movement & Rehabilitation Science, Bouvé College of Health Sciences, Northeastern University, Boston, U.S.A.

Whole body vibration exposure among long haul drivers and the potential for knowledge utilization
Philip Bigelow, Associate Professor, School of Public Health and Health Systems, University of Waterloo, Waterloo, Ont., Canada

A simplified head-neck dynamic model for evaluation of whole body vibration on helicopters
Ya Huang, Senior Lecturer, Engineering Dynamics, School of Engineering, University of Portsmouth, Portsmouth, U.K.

The effects of sex and obesity on three-dimensional trunk motion assessment of paramedics in real-life emergency conditions
Philippe Corbeil, Professor of Kinesiology, Université Laval, Quebec City, Canada

Implementing the RMQ approach to maximum acceptable effort: assessing cumulative hand activity within jobs and across job rotations based on duty cycle
Jim Potvin, Professor, Kinesiology, McMaster University, Hamilton, Ont., Canada

Room 202B

Measuring exposures in a new world of work – Session 2

Moderator: Alexis Descatha, Professor and Head, Occupational Health Unit, Inserm, University of Versailles Saint-Quentin-en-Yvelines (UVSQ), Raymond Poincaré University Hospital, Garches, France

Scientific background of practical methods to evaluate static postures at work
Bernd Hartmann, Occupational Physician, ArbMedErgo Hamburg, Hamburg, Germany

Comparing postural responses to push and pull task demands using optical motion vs. inertial measurement
Sol Lim, PhD Candidate, Industrial and Operations Engineering, University of Michigan, Ann Arbor, Mich., U.S.A.

Evaluation of ergonomic risk factors, musculoskeletal symptoms, exertion and workload among physiotherapists
Deepak Sharan, Medical Director, Orthopaedics, Rehabilitation & Ergonomics, RECOUP Neuromusculoskeletal Rehabilitation Centre, Bangalore, India

Relevance of pathomechanisms in developing appropriate exposure assessment models for work-related musculoskeletal disorders
Martin Forde, Professor and Chair, Department of Public Health & Preventive Medicine, School of Medicine, St. George's University in Grenada, Great River, N.Y., U.S.A.

Monday, June 20

10:30am - 12:00pm

Room 203A

Symposium 2 – Evaluation of MSD biomechanical risk factors: the use of inertial sensors

Chair: Adriana Savescu, Researcher, Human Life Department, French National Institute on Security and Occupational Health (INRS), Vandoeuvre, France

Using inertial sensors to monitor workers' trunk posture: the case of daycare workers

Genevieve Dumas, Professor, Department of Mechanical and Materials Engineering, Queen's University, Kingston, Ont., Canada

Orientation drift compensation of inertial sensors in magnetically distorted field applications

Ingo Hermanns, Research Officer, Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Sankt Augustin, Germany

Effect of task complexity and duration when validating an inertial system with an optoelectronic system

Xavier Robert-Lachaine, Research Assistant, Centre for Research in Occupational Safety and Health (CROSH), Laurentian University, Sudbury, Ont., Canada

Hand position estimation using inertial sensors

Adriana Savescu, Researcher, Human Life Department, French National Institute on Security and Occupational Health (INRS), Vandoeuvre, France

Inertial measurement units for assessment of the pattern of forward bending among blue-collar workers from the DPhacto cohort

Pascal Madeleine, Professor, Department of Health Science and Technology, Aalborg University, Aalborg, Denmark

Estimating 3D low-back moments during trunk bending using an inertial motion capture suit

Gert Faber, Assistant Professor, Department of Human Movement Sciences, VU University, Amsterdam, The Netherlands

Room 203B

Epidemiology of work-related MSDs – Session 1

Moderator: Alysha Meyers, Epidemiologist, Division of Surveillance, Hazard Evaluations and Field Studies, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, Cincinnati, U.S.A.

Epidemiological differences between localized and non-localized low-back pain

Karen Walker-Bone, Director, Arthritis Research, UK /MRC Centre for Musculoskeletal Health and Work, Southampton, U.K.

Use of multiple data sources for surveillance of work-related chronic low-back pain and low-back spinal damages in a French region

Natacha Fouquet, Epidemiologist, French Institute for Public Health Surveillance, Laboratory of Ergonomics and Epidemiology Laboratory, Department of Occupational Health, University of Angers, Angers, France

Are different mechanisms a potential reason for contrasting evidence on relationships between sedentary work and low-back symptoms?

Leon Straker, Professor, Physiotherapy and Exercise Science, Curtin University, Perth, Australia

Multidimensional factors associated with low back pain in adolescence

Leon Straker, Professor, Physiotherapy and Exercise Science, Curtin University, Perth, Australia

Monday, June 20
10:30am - 12:00pm

Room 204C

Health disparities and globalization – Session 1

Moderator: Judith Gold, Data Scientist and Epidemiology Consultant, Gold Standard Research Consulting, Philadelphia, Pa., U.S.A.

Towards understanding relationships among social inequalities, gender and working conditions associated with work-related musculoskeletal disorders
Susan Stock, Head, Scientific Group on Work-Related Musculoskeletal Disorders, Institut National de Santé Publique du Québec, Montreal, Canada

Lifestyle and work-related factors and the health of Australian long distance commute and residential miners: evidence from a cross-sectional survey
Venerina Johnston, Associate Professor, School of Health and Rehabilitation Sciences, University of Queensland, St. Lucia, Brisbane, Australia

The effect of union membership on lost time and MSD claim rates in construction in Ontario
Ben Amick, Senior Scientist, Institute for Work & Health, Toronto, Canada

Monday, June 20

1:30pm - 3:00pm

Ballroom B

Symposium 3 – Using job exposure matrices to determine the impact of physical workload on workers' musculoskeletal health: challenges and opportunities (Part 1)

Chair: Nils Fallentin, Research Director, National Research Center for the Working Environment, Copenhagen, Denmark

Development and evaluation of a job exposure matrix for general population studies of musculoskeletal disorders
Bradley Evanoff, Professor of Occupational, Industrial and Environmental Medicine, Director of the Division of General Medical Sciences, Washington University School of Medicine, St. Louis, U.S.A.

Comparison between two Danish expert-based JEMs and exposure estimates derived from ISCO linked U.S. O*NET job groups
Johan Hviid Andersen, Professor, Danish Ramazzini Centre, Department of Occupation Medicine, Regional Hospital West Jutland-University Research Clinic, Herning, Denmark

Job exposure matrices for estimating workplace physical exposures
Bradley Evanoff, Professor of Occupational, Industrial and Environmental Medicine, Director of the Division of General Medical Sciences, Washington University School of Medicine, St. Louis, U.S.A.

A general population job exposure matrix based on expert ratings and technical measurements: upper arm elevation and repetitive shoulder movements
Annett Dalbøge, Post-Doc, Occupational and Environmental Medicine, Aarhus University, Aarhus, Denmark

Room 201B

Field evaluations of MSD prevention policies, programs and practices – Session 2

Moderator: Lope H. Barrero, Associate Professor, Industrial Engineering, Pontificia Universidad Javeriana, Bogotá, Colombia

A gap analysis of MSD prevention activities in a comprehensive construction safety management program
Ann Marie Dale, Assistant Professor of Medicine and Occupational Therapy, Washington University School of Medicine, St. Louis, U.S.A.

OHS workplace interventions for upper extremity MSDs: an update of the evidence and messages
Dwayne Van Eerd, Associate Scientist, Institute for Work & Health, Toronto, Canada

Addressing essential skills gaps among participants in an OHS training program: a pilot study
Ron Saunders, Director of Knowledge Transfer & Exchange and Senior Scientist, Institute for Work & Health, Toronto, Canada

Whole body vibration exposures and truck drivers' health status in the U.S.
Peter Johnson, Professor Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, U.S.A.

Monday, June 20

1:30pm - 3:00pm

Room 201C

Emerging issues in the prevention and management of work-related MSDs – Session 2

Moderator: Stephen Hudock, Manager, Musculoskeletal Disorders Health and Safety Cross-Sector, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, Cincinnati, U.S.A.

Putting evidence in context: what works in occupational health and safety

Emma Irvin, Director of Research Operations, Institute for Work & Health, Toronto, Canada

Best practices for identifying best practices, and teaching workers to use them

Carrie Taylor, Ergonomist, Taylor'd Ergonomics Inc., Cambridge, Ont., Canada

Key informants' perspectives on MSD prevention and management commitment, training and workers' participation

Amin Yazdani, Research Assistant Professor, Kinesiology, University of Waterloo, Waterloo, Ont., Canada

Ergonomics and research to practice (r2p) in the construction industry

Laura Welch, Medical Director, Center for Construction Research and Training, Takoma Park, Md., U.S.A.

Room 202A

Measuring exposures in a new world of work – Session 3

Moderator: Mats Hagberg, Professor and Chief Physician, Occupational and Environmental Medicine, Sahlgrenska University Hospital, Gothenburg, Sweden

Duration of head extension among office workers with neck pain compared to healthy controls

Deokhoon Jun, School of Health and Rehabilitation Sciences, University of Queensland, Brisbane, Australia

Low-back pain affects self-reported task durations: results of an experimental study

Lope H. Barrero, Associate Professor, Industrial Engineering, Pontificia Universidad Javeriana, Bogotá, Colombia

Improving neck postures during tablet use

Veerle Hermans, Head, Department of Ergonomics at IDEWE, Vrije Universiteit Brussel, Brussels, Belgium

Monday, June 20

1:30pm - 3:00pm

Room 202B

Symposium 4 – Musculoskeletal and venous disorders in standing work: risk factors and perspectives for future prevention (Part 1)

Chair: Benjamin Steinhilber, Scientific Co-worker, Institute of Occupational Medicine, Social Medicine and Health Services Research, University Hospital Tübingen, Tübingen, Germany

Performance, muscle activity and discomfort while standing, sitting or using standing aids with different seat slopes

Corinne Nicoletti, Postdoctoral Researcher, Department of Health Sciences and Technology, ETH Zurich, Switzerland

Discomfort and standing work in Europe

Thomas Laeubli, Senior Scientist, Department of Health Sciences and Technology, Federal Institute of Technology, Zurich, Switzerland

Body posture and movement among 19,000 employees in the industrial sector

Andre Klussmann, Head, Department of Work and Health, Institute of Occupational Health, Safety and Ergonomics (ASER), Wuppertal, Germany

Room 203A

Symposium 5 – Efficient assessment of physical workload

Chair: Marina Heiden, Senior Lecturer, Centre for Musculoskeletal Research, University of Gävle, Gävle, Sweden

Cost-efficient assessment of variation in arm posture during paper mill work

Marina Heiden, Senior Lecturer, Centre for Musculoskeletal Research, University of Gävle, Gävle, Sweden

Variance components of observed postural exposure: the effect of partly visible periods

Catherine Trask, Assistant Professor, Canadian Centre for Health and Safety in Agriculture (CCHSA), University of Saskatchewan, Saskatoon, Canada

Reliability of using observations when assessing different posture variables

Jennifer Garza, Ergonomist, Department of Medicine, University of Connecticut, Manchester, Conn., U.S.A.

Influence of task proportion errors on the effectiveness of task-based job exposure modelling

Svend Erik Mathiassen, Professor, Centre for Musculoskeletal Research, University of Gävle, Gävle, Sweden

Monday, June 20

1:30pm - 3:00pm

Room 203B

Epidemiology of work-related MSDs – Session 3

Moderator: Bradley Evanoff, Professor of Occupational, Industrial and Environmental Medicine, Director of the Division of General Medical Sciences, Washington University School of Medicine, St. Louis, U.S.A.

Is there an exposure-response relationship between the NIOSH lifting index and low back disorders?

Ming-Lun Lu, Research Ergonomist, Division of Applied Research and Technology, National Institute of Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, Cincinnati, Ohio, U.S.A.

Low-back pain and potential work-related factors among home care aides

Chuan Sun, University of Massachusetts Lowell, Lowell, Mass., U.S.A.

Association between neck pain and working postures among forklift operators

Charlotte Wåhlin, Ergonomist, Department of Occupational and Environmental Medicine, University Hospital, Linköping, Sweden

Room 204A

Epidemiology of work-related MSDs – Session 4

Moderator: David Rempel, Professor Emeritus of Medicine, Division of Occupational and Environmental Medicine, University of California at San Francisco, Richmond, Calif., U.S.A.

Is coxarthrosis an occupational disease by law?

Bernd Hartmann, Occupational Health Physician, ArbMedErgo Hamburg, Hamburg, Germany

Kneeling as an occupational risk in the etiology of knee osteoarthritis: secondary analysis of the Danish DWECS cohort study

Falk Liebers, Occupational Health Physician, Work and Health Division, Federal Institute for Occupational Safety and Health, Berlin, Germany

Non-traumatic upper extremity musculoskeletal pain, physical and psychosocial/organizational work exposures and psychological distress: a path analysis of mediated and moderated effects

Nektaria Nicolakakis, Research Associate, Institut national de santé publique du Québec, Montreal, Canada

Demographic, clinical and work-related factors associated with return-to-work trajectories for musculoskeletal disorders

Chris McLeod, Assistant Professor, School of Population and Public Health, University of British Columbia, Vancouver, Canada

Monday, June 20

1:30pm - 3:00pm

Room 204C

Economic burden of work-related MSDs – Session 1

Moderator: Monique Frings-Dresen, Professor and Director, Coronel Institute of Occupational Health, Academic Medical Center Amsterdam, Amsterdam, The Netherlands

Costs of work-related musculoskeletal disorders in Colombia, 2009-2012

Martha Isabel Riaño Casallas, PhD Student, Economic Sciences, Universidad Nacional de Colombia Bogotá, Bogotá, Colombia

Economic burden of occupational musculoskeletal disorders in the wholesale and retail trade sectors and subsectors

Anasua Bhattacharya, Senior Service Fellow, Economist, Centers for Disease Control and Prevention, Cincinnati, U.S.A.

The increasing burden of work-related musculoskeletal disorders in Sweden

Adnan Noor, Statistician-Researcher, Occupational and Environmental Medicine, Sahlgrenska University Hospital and University of Gothenburg, Gothenburg, Sweden

Body mass index, musculoskeletal symptoms and health-related job loss in older workers

Catherine Linaker, Senior Research Fellow, Arthritis Research UK/MRC Centre for Musculoskeletal Health and Work, University of Southampton, Southampton, U.K.

The monetary value of productivity losses due to musculoskeletal disorders in office workers

Michelle Pereira, Ergonomist, Occupational Health, Escola Nacional de Saude Publica, Universidad Nova de Lisboa, Lisbon, Portugal

Monday, June 20

3:30pm - 5:00pm

Ballroom B

Symposium 6 – Using job exposure matrices to determine the impact of physical workload on workers' musculoskeletal health: challenges and opportunities (Part 2)

Chair: Nils Fallentin, Research Director, National Research Center for the Working Environment, Copenhagen, Denmark

Occupational mechanical exposures and risk of inguinal hernia, varicose veins, osteoarthritis of the hip and combined pain in the lower and upper body: experiences from using the Lower Body JEM in large-scale epidemiologic studies

Poul Frost, Consultant, Department of Occupational Medicine, Aarhus University Hospital, Aarhus, Denmark

Incident carpal tunnel syndrome in a large pooled cohort study: results obtained by JEM versus results obtained from observed exposures

Ann Marie Dale, Assistant Professor of Medicine and Occupational Therapy, Washington University School of Medicine, St. Louis, U.S.A

Example of using JEM: Carpal tunnel syndrome and computer exposure at work in two large complementary cohorts

Alexis Descatha, Professor and Head, Occupational Health Unit, Inserm, University of Versailles Saint-Quentin-en-Yvelines (UVSQ), Raymond Poincaré University Hospital, Garches, France

Occupational mechanical exposures and risk of shoulder surgery: modelling cumulative exposures, duration and intensity

Annett Dalbøge, Post-Doc, Occupational and Environmental Medicine, Aarhus University, Aarhus, Denmark

Room 201A

Emerging issues in the prevention and management of work-related MSDs – Session 3

Moderator: Dwayne Van Eerd, Associate Scientist, Institute for Work & Health, Toronto, Canada

Identifying high-risk workplaces for work-related musculoskeletal disorders in Washington State
Ninica Howard, Ergonomist, Safety & Health Assessment & Research for Prevention (SHARP), Washington State Department of Labor and Industries, Olympia, Wash., U.S.A.

The obliquity strategy: a key to progress in MSD prevention?

Patrick Neuman, Professor, Human Factors Engineering Lab, Mechanical and Industrial Engineering, Ryerson University, Toronto, Canada

Comparison of lifting techniques among non-trained workers, trained workers and trainers
Mohammad Abdoli-Eramaki, Associate Professor, School of Occupational and Public Health, Ryerson University, Toronto, Canada

Taking the next step: operationalizing a behaviour-based approach for musculoskeletal injury prevention interventions

Paul Rothmore, Senior Lecturer, School of Public Health, University of Adelaide, Adelaide, Australia

Monday, June 20
3:30pm - 5:00pm

Room 201B

Field evaluations of MSD prevention policies, programs and practices – Session 3

Moderator: Allard van der Beek, Professor and Department Vice-Head, EMGO Institute for Health and Care Research, VU University Medical Centre, Amsterdam, The Netherlands

Successes and challenges of implementing a comprehensive ergonomics and wellness total worker health intervention on commercial construction sites
Michael Grant, Doctoral Candidate, Environmental Health, Harvard School of Public Health, Boston, U.S.A.

Effects of an ergonomic intervention on posture and discomfort of office workers: a cluster randomized controlled trial
Tatiana Sato, Professor, Department of Physical Therapy, Federal University of São Carlos, São Carlos, Brazil

Evaluation of facilitators and barriers to implementing ergonomic solutions in construction
Laura Welch, Medical Director, Center for Construction Research and Training, Takoma Park, Md., U.S.A.

Room 201C

Emerging issues in the prevention and management of work-related MSDs – Session 4

Moderator: Dorcas Beaton, Senior Scientist, Institute for Work & Health, Toronto, Canada

Effects of driving and whole body vibration on reaction times in truck drivers: findings from a pilot study
Bronson Du, University of Waterloo, Waterloo, Ont., Canada

A randomized controlled trial evaluating the ability of truck seats to reduce whole body vibration exposures and self-reported adverse health outcomes
Peter Johnson, Professor, Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, U.S.A.

The effect of a multi-axial suspension on whole body vibration exposures and muscle loading on the neck and low back in an agricultural tractor application.
Peter Johnson, Professor, Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, U.S.A.

Measuring the use of tethered tools while working at heights
Maria Wiener, University of Wisconsin, Milwaukee, Wis., U.S.A.

Monday, June 20

3:30pm - 5:00pm

Room 202A

Measuring exposures in a new world of work – Session 4

Moderator: Jim Potvin, Professor, Kinesiology, McMaster University, Hamilton, Canada

Physical demands of paramedic work in real-life emergency conditions

Philippe Corbeil, Professor of Kinesiology, Université Laval, Quebec City, Canada

Use of MAPO to assess the risk for work-related MSDs among personal care workers working in nursing homes
Kin Cheung, Associate Professor, School of Nursing, Hong Kong Polytechnic University, Kowloon, Hong Kong, China

Physical workload and home condition among home care aides

Chuan Sun, University of Massachusetts Lowell, Lowell, Mass., U.S.A.

Room 202B

Symposium 7 – Musculoskeletal and venous disorders in standing work: risk factors and perspectives for future prevention (Part 2)

Chair: Benjamin Steinhilber, Scientific Co-worker, Institute of Occupational Medicine, Social Medicine and Health Services Research, University Hospital Tübingen, Tübingen, Germany

Determining lower leg edema in standing work: reliability of a modified water plethysmograph and effects of prolonged standing exposure

Rudolf Wall, Scientific Co-worker and PhD Student, Institute of Occupational and Social Medicine and Health Services Research, University Hospital Tübingen, Tübingen, Germany

Long-term leg muscle fatigue in standing work: effects of two ergonomic interventions

Maria-Gabriela Garcia, PhD Candidate, Sensory-Motor Systems Lab, Department of Health Sciences and Technology, Swiss Federal Institute of Technology, Zürich, Switzerland

Relationships between lower limb vascular and muscular outcomes in standing and sit-standing work postures

David Antle, Research Director & Senior Ergonomist, EWI Works International, Edmonton, Canada

Monday, June 20
3:30pm - 5:00pm

Room 203A

Symposium 8 – Efficient assessment of physical workload

Chair: Marina Heiden, Senior Lecturer, Centre for Musculoskeletal Research, University of Gävle, Gävle, Sweden

Improving questionnaire-based estimates of occupational physical activity of blue-collar workers by individual and work-related information

Marina Heiden, Senior Lecturer, Centre for Musculoskeletal Research, University of Gävle, Gävle, Sweden

Predicting physical exposures during computer use as a means to investigate the relationship between physical exposures and symptoms in a large cohort of office workers

Maaïke Huysmans, Senior Researcher, Public and Occupational Health, VU University Medical Center, Amsterdam, The Netherlands

A web-based survey to document workers' mechanical exposures at a workplace level

Richard Wells, Professor, Department of Kinesiology, Faculty of Applied Health Sciences, University of Waterloo, Waterloo, Ont., Canada

Quick reference tables to estimate female manual arm strength

Jim Potvin, Professor, Kinesiology, McMaster University, Hamilton, Canada

Room 203B

Epidemiology of work-related MSDs – Session 5

Moderator: Alexis Descatha, Professor and Head, Occupational Health Unit, Inserm, University of Versailles Saint-Quentin-en-Yvelines (UVSQ), Raymond Poincaré University Hospital, Garches, France

Physical risk factors for the development of neck pain in office workers: a systematic review

Deokhoon Jun, School of Health and Rehabilitation Sciences, University of Queensland, Brisbane, Australia

Is work a risk factor for lumbosacral radicular syndrome? A systematic review and meta-analysis of clinical studies

Paul Kuijer, Assistant Professor, Coronel Institute of Occupational Health, Academic Medical Center Amsterdam, Amsterdam, The Netherlands

Analysis of ergonomic risk factors in a seafood manufacturing company

Deepak Sharan, Medical Director, Orthopaedics, Rehabilitation & Ergonomics, RECOUP Neuromusculoskeletal Rehabilitation Centre, Bangalore, India

Ergonomic risk factors in an electrical equipment manufacturing company

Deepak Sharan, Medical Director, Orthopaedics, Rehabilitation & Ergonomics, RECOUP Neuromusculoskeletal Rehabilitation Centre, Bangalore, India

Monday, June 20
3:30pm - 5:00pm

Room 204A

Management of work-related MSDs and sustainable employment – Session 1

Moderator: Richard Wells, Professor, Department of Kinesiology, Faculty of Applied Health Sciences, University of Waterloo, Waterloo, Ont., Canada

Does the addition of a vocational advice service to best current care improve work outcomes in patients with musculoskeletal pain? The SWAP trial
Gwenllian Wynne-Jones, NIHR Research Fellow, Arthritis Research, UK Primary Care Centre, Research Institute for Primary Care & Health Sciences, Keele University, Keele, U.K.

The reporting of low-back pain by Korean firefighters
Jangwhon Yoon, Assistant Professor, Department of Physical Therapy, Hoseo University, Cheonan, South Korea

Prevalence of low-back pain in Danish office workers and the effect of Intelligent Physical Exercise Training: a randomized controlled trial.
Tina Dalager, PhD Student, Department of Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense, Denmark

Room 204C

Management of work-related MSDs and sustainable employment – Session 2

Moderator: Emma Irvin, Director of Research Operations, Institute for Work & Health, Toronto, Canada

Age as a factor affecting repetitive manual handling technique

Mark Boocock, Associate Professor, Health and Rehabilitation Institute, Auckland University Technology, Auckland, New Zealand

Lifting during pregnancy: provisional guidelines
Stephen Hudock, Manager, Musculoskeletal Disorders Health and Safety Cross-Sector, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, Cincinnati, U.S.A

Interventions to promote work participation in older workers with musculoskeletal disorders: results from a systematic review
Ivan Steenstra, Research Facilitator, Ted Rogers School of Management, Ryerson University, Toronto, Canada

Tuesday, June 21

7:30 - 8:30am	Breakfast
8:30 - 10:00am	Keynote Speaker: Dr. Linda Goldenhar
10:00 - 10:30am	Break
10:30am - 12:00pm	Symposia and Sessions
12:00 - 1:30pm	Lunch / ICOH Member Lunch in Room 204B
1:30 - 3:00pm	Symposia and Sessions
3:00 - 3:30pm	Break
3:30 - 5:00pm	Symposia and Sessions
5:00pm onwards	Social Events: iDAPT Tour (5:40pm), Blue Jays Baseball Game (7:00pm)

Location	10:30am - 12:00pm	1:30 - 3:00pm	3:30 - 5:00pm
Ballroom B	Symposium 9 Biomechanics of the upper extremities during mobile IT work (Part 1): smartphone use I Chair: Pascal Madeleine	Symposium 12 Biomechanics of the upper extremities during mobile IT work (Part 2): smartphone use II Chair: Pascal Madeleine	Symposium 17 Biomechanics of the upper extremities during mobile IT work (Part 3): workstations and mobility I Chair: Pascal Madeleine
201A	Symposium 10 Implementing ergonomic change Chair: Dwayne Van Eerd	Symposium 13 The design, development and use of digital tools for MSD prevention Chair: Dwayne Van Eerd	Economic burden (Session 2) Moderator: Susan Stock
201B	Field evaluations (Session 4) Moderator: Jack Dennerlein	Field evaluations (Session 5) Moderator: Chris McLeod	
201C	Biology (Session 2) Moderator: Mats Hagberg	Emerging issues (Session 6) Moderator: Alysha Meyers	Management and sustainable employment (Session 3) Moderator: Emma Irvin
202A	Symposium 11 Technical field measurements of sedentary work and occupational physical demands: a PEROSH-initiative (Part 1) Chair: Andreas Holtermann	Symposium 14 Technical field measurements of sedentary work and occupational physical demands: a PEROSH-initiative (Part 2) Chair: Andreas Holtermann	Management and sustainable employment (Session 4) Moderator: Ben Amick
202B		Symposium 15 Workplace interventions for sedentary work (Part 1) Chair: Veerle Hermans	Symposium 18 Workplace interventions for sedentary work (Part 2) Chair: Veerle Hermans
203A	Measuring exposures (Session 5) Moderator: Catherine Trask	Symposium 16 New methods for assessing risks for upper extremity MSDs (Part 1) Chair: Carisa Harris Adamson	Symposium 19 New methods for assessing risks for upper extremity MSDs (Part 2) Chair: Carisa Harris Adamson
203B	Measuring exposures (Session 6) Moderator: Dongmug Kang	Measuring exposures (Session 7) Moderator: David Doupbrate	Measuring exposures (Session 8) Moderator: Richard Wells
204A	Epidemiology (Session 6) Moderator: Stephen Hudock	Epidemiology (Session 7) Moderator: Ron Saunders	Epidemiology (Session 8) Moderator: Allard van der Beek
204C	Emerging issues (Session 5) Moderator: Laura Punnett	Emerging issues (Session 7) Moderator: Lope H. Barrero	Emerging issues (Session 8) Moderator: Sheilah Hogg-Johnson

Tuesday, June 21
10:30am - 12:00pm

Ballroom B

Symposium 9 – Biomechanics of the upper extremities during mobile IT work (Part 1): smartphone use I

Chair: Pascal Madeleine, Professor, Department of Health Science and Technology, Aalborg University, Aalborg, Denmark

Effects of mobile input device type and texting style on upper extremity and upper trapezius muscle activity and cervical posture during texting

Jonathan Dropkin, Senior Ergonomist & Assistant Professor, Department of Occupational Medicine, Great Neck, New York, U.S.A.

Young children's movements while using mobile touchscreen devices

Leon Straker, Professor, Physiotherapy and Exercise Science, Curtin University, Perth, Australia

Is motor variability influenced in a smart way by smartphones use?

Pascal Madeleine, Professor, Department of Health Science and Technology, Aalborg University, Aalborg, Denmark

Is texting on mobile phones a risk factor for musculoskeletal disorders in neck and upper extremities?

Ewa Gustafsson, Occupational & Environmental Medicine, University of Gothenburg, Billdal, Sweden

Room 201A

Symposium 10 – Implementing ergonomic change

Chair: Dwayne Van Eerd, Associate Scientist, Institute for Work & Health, Toronto, Canada

The implementation of ergonomics advice and the "stage of change" approach

Paul Rothmore, Senior Lecturer, School of Public Health, University of Adelaide, Adelaide, Australia

Participatory ergonomics for preventing work-related musculoskeletal disorders of aircraft cabin cleaners in Hong Kong

Billy So, Clinical Associate, Department of Rehabilitation Sciences, Hong Kong Polytechnic University, Hong Kong, China

Implementing a participatory change program in health care

Dwayne Van Eerd, Associate Scientist, Institute for Work & Health, Toronto, Canada

Processes, barriers and facilitators to the implementation of a participatory ergonomics program among nurses' aides

Charlotte Rasmussen, Department of Musculoskeletal Disorders and Physical Workload, National Research Centre for the Working Environment, Copenhagen, Denmark

Development and implementation of a guideline on a participatory approach in Netherland workplaces

Maike Huysmans, Senior Researcher, Public and Occupational Health, VU University Medical Center, Amsterdam, The Netherlands

Tuesday, June 21
10:30am - 12:00pm

Room 201B

Field evaluations of MSD prevention policies, programs and practices – Session 4

Moderator: Jack Dennerlein, Professor, Department of Physical Therapy, Movement & Rehabilitation Science, Bouvé College of Health Sciences, Northeastern University, Boston, U.S.A.

Evaluation of two guidance strategies on the use of ergonomic measures

Henk Van der Molen, Senior Researcher, Coronel Institute of Occupational Health, Academic Medical Center, Amsterdam, The Netherlands

The effectiveness of an “ergonomic” keyboard for reducing musculoskeletal symptoms

Nancy Baker, Associate Professor, Department of Occupational Therapy, University of Pittsburgh, Pittsburgh, Pa., U.S.A.

Prevalence and risk factors associated with upper extremity musculoskeletal disorders among bakers in Iran doing repetitive job activities

Mehrzad Ebrahemzadih, Head, Laboratory of Occupational Health and Department of Occupational Health, Faculty of Health, Kurdistan University of Medical Sciences, Kurdistan, Iran

Encouraging postural breaks: findings from a two-year behaviour change study

Claire Williams, Senior Ergonomist and Human Factors Specialist, Human Applications, Loughborough, U.K.

Room 201C

Biology of work-related MSDs – Session 2

Moderator: Mats Hagberg, Professor and Chief Physician, Occupational and Environmental Medicine, Sahlgrenska Academy and University Hospital, Gothenburg, Sweden

The association of sickness behaviours, serum and brain cytokines with the performance of high-demand tasks and aging in a rat model of overuse

Mary Barbe, Professor of Anatomy and Cell Biology, Larry Katz School of Medicine, Temple University, Philadelphia, Pa., U.S.A.

Biochemical biomarkers for MSDs: systematic review results

Judith Gold, Data Scientist and Epidemiology Consultant, Gold Standard Research Consulting, Philadelphia, Pa., U.S.A.

Development of a treatment protocol based on the biophysiology of computer-related MSDs

Suparna Damany, , Guest Lecturer and Clinical Instructor, Department of Physical Therapy, DeSales University, Bethlehem, Pa., U.S.A.

The association between sickness behaviours and systemic inflammatory cytokines and anti-inflammatory drugs in a rat model of overuse

Mary Barbe, Professor of Anatomy and Cell Biology, Larry Katz School of Medicine, Temple University, Philadelphia, Pa., U.S.A.

Tuesday, June 21
10:30am - 12:00pm

Room 202A

Symposium 11 – Technical field measurements of sedentary work and occupational physical demands: a PEROSH-initiative (Part 1)

Chair: Andreas Holtermann, Professor, Physical Workload and Musculoskeletal Disorders, National Research Centre for the Working Environment, Copenhagen, Denmark

Validation and calibration of questionnaire-based sitting time: an accelerometer-based study among blue collar workers

Andreas Holtermann, Professor, Physical Workload and Musculoskeletal Disorders, National Research Centre for the Working Environment, Copenhagen, Denmark

Classification of wearables for occupational physical activity measurements

Britta Weber, Research Officer, Institute of Occupational Safety and Health of the German Social Accident Insurance (IFA), Sankt Augustin, Germany

Practical objective measurements for sedentary time and body postures using Excel and iOS

Mikael Forsman, Professor, Occupational Medicine, Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden

Room 203A

Measuring exposures in a new world of work – Session 5

Moderator: Catherine Trask, Assistant Professor, Canadian Centre for Health and Safety in Agriculture (CCHSA), University of Saskatchewan, Saskatoon, Canada

Metrics for quantifying variation in biomechanical exposure data: what does the literature show us?

Francisco Locks Neto, PhD Candidate, Federal University of São Carlos, São Carlos, Brazil

Comparing the Quick Exposure Check with risk assessments based on no specific method

Teresia Nyman, Ergonomist, Occupational and Environmental Medicine, Uppsala County Council, Uppsala, Sweden

Content and quality of questionnaires for assessment of physical functioning in MSDs: a systematic review

Birgitta Wiitavaara, Senior Lecturer, Centre for Musculoskeletal Research, Department of Occupational and Public Health Sciences, Faculty of Health and Occupational Studies, University of Gävle, Gävle, Sweden

Tuesday, June 21
10:30am - 12:00pm

Room 203B

Measuring exposures in a new world of work – Session 6

Moderator: Dongmug Kang, Professor and Director, Preventive and Occupational Medicine, Pusan National University School of Medicine, Yangsan, South Korea

Assessing workers' ability to recognize lifting risk factors for low-back pain: investigating the efficacy of a simple educational message
Binh Ngo, Department of Kinesiology, University of Waterloo, Waterloo, Ont., Canada

Lifting demands of daycare workers: the effect of the caregiver to child ratio regulations
Tara Diesbourg, Doctoral Student, Biomechanics Ergonomics Lab, School of Kinesiology and Health Sciences, Queen's University, Kingston, Ont., Canada

Associations between lower extremity musculoskeletal disorders and tibial acceleration measures
Steven Lavender, Integrated Systems Engineering & Orthopaedics, Ohio State University, Columbus, Ohio, U.S.A.

Assessing energy balance, physiological reactions and nutritional practices in Ontario fire rangers during fire deployment
Ayden Robertson, School of Human Kinetics, Laurentian University, Sudbury, Ont., Canada

Room 204A

Epidemiology of work-related MSDs – Session 6

Moderator: Stephen Hudock, Manager, Musculoskeletal Disorders Health and Safety Cross-Sector, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, Cincinnati, U.S.A.

Diagnosis of work-related lumbar disc diseases: results from the case list of a public occupational health clinic
Angela Carta, MD, Hospital Unit of Occupational Medicine, Hygiene, Toxicology and Occupational Prevention, ASST Spedali Civili, Brescia, Italy

Prognosis after surgery for subacromial impingement syndrome: negative influence of high preoperative occupational shoulder exposures
Susanne Wulff Svendsen, Professor, Department of Occupational Medicine, Regional Hospital West Jutland - University Research Clinic, Herning, Denmark

The content validity of the Work-Related Questionnaire for Upper extremity disorders (WORQ-UP)
Monique Frings-Dresen, Professor and Director, Coronal Institute of Occupational Health, Academic Medical Center Amsterdam, Amsterdam, The Netherlands

Long-term prolonged standing: the silent risk factor for lower extremity health outcomes
Kermit Davis, Associate Professor, University of Cincinnati, Cincinnati, U.S.A.

Tuesday, June 21
10:30am - 12:00pm

Room 204C

Emerging issues in the prevention and management of work-related MSDs – Session 5

Moderator: Laura Punnett, Professor, Department of Work Environment, College of Health Sciences, University of Massachusetts Lowell, Lowell, Mass., U.S.A.

Musculoskeletal disorders as a fatigue failure process: implications and research needs

Sean Gallagher, Associate Professor, Industrial and Systems Engineering, Auburn University, Auburn, Ala., U.S.A.

The influence of individual characteristics on fatigue life of musculoskeletal tissues: implications and recommendations

Rong Huangfu, Auburn University, Auburn, Ala., U.S.A.

Human-robot collaborations as job interventions for physical stress

Robert Radwin, Professor, Department of Industrial and Systems Engineering, University of Wisconsin-Madison, Madison, Wis., U.S.A.

Factors at the transition: understanding return-to-work decisions

Carol Kennedy, Research Associate, Institute for Work & Health, Toronto, Canada

Tuesday, June 21
1:30pm - 3:00pm

Ballroom B

Symposium 12 – Biomechanics of the upper extremities during mobile IT work (Part 2): smartphone use II

Chair: Pascal Madeleine, Professor, Department of Health Science and Technology, Aalborg University, Aalborg, Denmark

Smartphone usage pattern and its biomechanical impact on the cervical spine and shoulder

Gwanseob Shin, Medical Resident, Department of Occupational and Environmental Medicine, Green Hospital, Wonjin Foundation, Seoul, South Korea

Mechanisms of motor control during smartphone texting contributing to neck pain

Grace Szeto, Associate Professor, Rehabilitation Sciences, Hong Kong Polytechnic University, Hong Kong, China

Biomechanical exposures, typing productivity, subjective comfort and usability during touchscreen, virtual keyboard use

Peter Johnson, Professor, Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, U.S.A.

Room 201A

Symposium 13 – The design, development and use of digital tools for MSD prevention

Chair: Dwayne Van Eerd, Associate Scientist, Institute for Work & Health, Toronto, Canada

eOffice Ergo: development of an e-learning course
Dwayne Van Eerd, Associate Scientist, Institute for Work & Health, Toronto, Canada

Can we flip the classroom in occupational health? A case study related to workforce aging
Ken Scott, Department of Epidemiology, Colorado School of Public Health, Denver, Colo., U.S.A.

Evaluation of Oculus Rift as a tool for ergonomics assessments within Siemens Jack
Michael Sonne, McMaster University, Hamilton, Canada

Designing mobile apps for the workplace: building capacity and big data
Michael Sonne, McMaster University, Hamilton, Canada

Tuesday, June 21
1:30pm - 3:00pm

Room 201B

Field evaluations of MSD prevention policies, programs and practices – Session 5

Moderator: Chris McLeod, Assistant Professor, School of Population and Public Health, University of British Columbia, Vancouver, Canada

Safe patient handling: does literature support adoption?
Kermit Davis, Associate Professor, University of Cincinnati, Cincinnati, U.S.A.

Determinants of low-back pain in nursing home workers after implementation of a safe resident handling program
Laura Punnett, Professor, Department of Work Environment, College of Health Sciences, University of Massachusetts Lowell, Lowell, Mass., U.S.A.

Conditions for the prevention of musculoskeletal and psychosocial disorders: the case of the hospital sector
Aude Cuny, PhD Student, University of Grenoble Alpes, Institut national de recherche et de sécurité (INRS), Vandoeuvre, France

The impact of an integrated hospital-wide safe patient handling and mobilization program on the reduction of lifting injuries
Jack Dennerlein, Professor, Department of Physical Therapy, Movement & Rehabilitation Science, Bouvé College of Health Sciences, Northeastern University, Boston, U.S.A.

Room 201C

Emerging issues in the prevention and management of work-related MSDs – Session 6

Moderator: Alysha Meyers, Epidemiologist, Division of Surveillance, Hazard Evaluations and Field Studies, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, Cincinnati, U.S.A.

Bracing matters: Workers using their environment to make their tasks easier
Monica Jones, PhD Candidate, School of Population and Public Health, University of British Columbia, Vancouver, Canada

Differences in disability duration for musculoskeletal injuries by sex/gender: an emerging issue for management of work-related MSDs
Mieke Koehoorn, Professor, School of Population and Public Health, University of British Columbia, Vancouver, Canada

Biomechanical evaluation of optimal leg lifting
Hamed Pardehshenas, Ryerson University, Toronto, Canada

Standing up for workplace health: guidance for office environments
Carrie Taylor, Ergonomist, Taylor'd Ergonomics Incorporated, Cambridge, Ont., Canada

Tuesday, June 21
1:30pm - 3:00pm

Room 202A

Symposium 14 – Technical field measurements of sedentary work and occupational physical demands: a PEROSH-initiative (Part 2)

Chair: Andreas Holtermann, Professor, Physical Workload and Musculoskeletal Disorders, National Research Centre for the Working Environment, Copenhagen, Denmark

How to objectively measure lifting burden in the field on many participants: results and experience from use of pressure-measurement insoles in a field study
Markus Koch, National Institute of Occupational Health, Hamar, Norway

Development of a CTS risk-assessment method for manual working processes based on technical measurements
Ulrike Hoehne-Hueckstaedt, Head, Physiological Work Design Ergonomics, Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Sankt Augustin, Germany

Sample size and statistical performance in studies of sedentary behaviour: a novel approach based on compositional data analysis
Svend Erik Mathiassen, Professor, Centre for Musculoskeletal Research, University of Gävle, Gävle, Sweden

Room 202B

Symposium 15 – Workplace interventions for sedentary work (Part 1)

Chair: Veerle Hermans, Professor and Department Head of Ergonomics at IDEWE, Vrije Universiteit Brussel, Brussels, Belgium

Are workplace interventions for reducing sitting at work effective?

Veerle Hermans, Professor and Department Head, Ergonomics at IDEWE, Vrije Universiteit Brussel, Brussels, Belgium

Office work: the ergonomic pitfalls of today's "trendy" offices

Veerle Hermans, Professor and Department Head, Ergonomics at IDEWE, Vrije Universiteit Brussel, Brussels, Belgium

Effects of occupational standing on musculoskeletal outcomes: a systematic review

Pieter Coenen, Post-doctoral Researcher, School of Physiotherapy and Exercise Science, Curtin University, Perth, Australia

Objectively measured total and occupational sedentary time in three work settings

Allard van der Beek, Professor and Department Vice-Head, EMGO Institute for Health and Care Research, VU University Medical Centre, Amsterdam, The Netherlands

Tuesday, June 21
1:30pm - 3:00pm

Room 203A

Symposium 16 – New methods for assessing risks for upper extremity MSDs (Part 1)

Chair: Carisa Harris Adamson, Director, Ergonomics Program, Center for Occupational and Environmental Health, University of California, Richmond, Calif., U.S.A.

Effect modification of the association between biomechanical, work psychosocial exposure and carpal tunnel syndrome by personal and biomechanical factors
Carisa Harris Adamson, Director, Ergonomics Program, Center for Occupational and Environmental Health, University of California, Richmond, Calif., U.S.A.

Threshold limit value for biomechanical risk factors (ACGIH-TLV®): a cohort study on carpal tunnel syndrome in manual workers
Roberta Bonfiglioli, Associate Professor, Department of Medical and Surgical Sciences, Occupational Medicine, University of Bologna, Bologna, Italy

Job rotation: a failed ergonomics intervention approach?
Stephen Bao, Associate Professor, Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, U.S.A.

Associations between psychosocial and biomechanical factors and shoulder pain: a structural equation model
Julie Bodin, Statistician, Laboratory of Ergonomics and Epidemiology in Occupational Health, University of Angers, Angers, France

A comparison of three techniques for quantifying HAL and their impact on the ACGIH TLV for HAL risk predictions
Jay Kapellusch, Associate Professor, College of Health Sciences, University of Wisconsin – Milwaukee, Milwaukee, U.S.A.

Room 203B

Measuring exposures in a new world of work – Session 7

Moderator: David Douphrate, Assistant Professor of Epidemiology, Human Genetics and Environmental Sciences, School of Public Health, University of Texas, San Antonio, U.S.A.

Assessing the biomechanical loads on nurses associated with the use of slings and mechanized patient lifting equipment
Steven Lavender, Integrated Systems Engineering & Orthopaedics, Ohio State University, Columbus, Ohio, U.S.A.

Sensitivity analysis of surface electromyography during different lifting conditions
Mikkel Brandt, PhD Student, National Research Centre for the Working Environment, Copenhagen, Denmark

Revised NIOSH lifting equation for job rotation: the cumulative lifting index
Jay Kapellusch, Associate Professor, College of Health Sciences, University of Wisconsin - Milwaukee, Milwaukee, Wis., U.S.A.

Tuesday, June 21
1:30pm - 3:00pm

Room 204A

Epidemiology of work-related MSDs – Session 7

Moderator: Ron Saunders, Director of Knowledge Transfer and Exchange and Senior Scientist, Institute for Work & Health, Toronto, Canada

Physical work demands and risk of long-term sickness absence in the general working population and among blue-collar workers: prospective cohort study
Lars Andersen, Professor, Musculoskeletal Disorders, National Research Centre for the Working Environment, Copenhagen, Denmark

Work-related musculoskeletal disorders in the U.S. construction Industry, 1992-2013
Xiuwen Sue Dong, Data Center Director for CPWR - The Center for Construction Research and Training, Silver Spring, Md., U.S.A.

Evaluation of ergonomic risk factors in an interconnector manufacturing company
Deepak Sharan, Medical Director, Orthopaedics, Rehabilitation & Ergonomics, RECOUP Neuromusculoskeletal Rehabilitation Centre, Bangalore, India

Declining incidence of work-related musculoskeletal disorders in Ontario, 2004-2011
Cameron Mustard, President and Senior Scientist, Institute for Work & Health, Toronto, Canada

Room 204C

Emerging issues in the prevention and management of work-related MSDs – Session 7

Moderator: Lope H. Barrero, Associate Professor, Industrial Engineering, Pontificia Universidad Javeriana, Bogotá, Colombia

Quick and dirty ergonomics: when is this approach appropriate?
Josie Blake, Ergonomist, Taylor'd Ergonomics Incorporated, Cambridge, Ont., Canada

Pushing ergo upstream: selling ergonomics to engineers
Karen Hoodless, Ergonomist, Taylor'd Ergonomics Incorporated, Cambridge, Ont., Canada

Ergonomic benefits from a laparoscopic instrument with rotatable handle piece: importance of operation field area and working height
Benjamin Steinhilber, Scientific Co-worker, Institute of Occupational Medicine, Social Medicine and Health Services, University Hospital Tuebingen, Tuebingen, Germany

Tuesday, June 21
3:30pm - 5:00pm

Ballroom B

Symposium 17 – Biomechanics of the upper extremities during mobile IT work (Part 3): workstations and mobility I

Chair: Pascal Madeleine, Professor, Department of Health Science and Technology, Aalborg University, Aalborg, Denmark

Modified computer workstations to increase mobility: how do they affect trunk, neck and upper limb patterns?

Julie Côté, Associate Professor, Department of Kinesiology and Physical Education, McGill University, Montreal, Canada

A comparison of upper limb muscle recruitment strategies during a manual task in seated and standing work postures

David Antle, Research Director & Senior Ergonomist, EWI Works International, Edmonton, Canada

The impact of a low extra load during active pauses on variability in muscle activation

Nancy St-Onge, Associate Professor, Department of Exercise Science, Concordia University, Montreal, Canada

Room 201A

Economic burden of work-related MSDs – Session 2

Moderator: Susan Stock, Head, Scientific Group on Work-Related Musculoskeletal Disorders, Institut National de Santé Publique du Québec, Montreal, Canada

The cost-effectiveness of therapeutic ultrasound versus application of corticosteroids in the management of moderate carpal tunnel syndrome in Colombian working population

Francisco Palencia, Public Health Student, Public Health Institute, Universidad Nacional de Colombia, Bogotá, Colombia

Costs of work-related low-back disorders: a huge but unappreciated burden on Mexico's health systems

Nieves Serratos-Perez, Head, Department of Applied Health Sciences, Universidad de Guanajuato, Leon, Guanajuato, Mexico

Whole body vibration exposures: using low-back and neck claims to assess the cost and health effects of different bus driver seats

Peter Johnson, Professor, Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, U.S.A.

A cost-benefit analysis of peer-coaching for overhead lift use in the long-term care sector in Canada

Emile Tompa, Senior Scientist, Institute for Work & Health, Toronto, Canada

Tuesday, June 21
3:30pm - 5:00pm

Room 201C

Management of work-related MSDs and sustainable employment – Session 3

Moderator: Emma Irvin, Director, Research Operations, Institute for Work & Health, Toronto, Canada

The experiences of stakeholders with a primary care based vocational advice service: qualitative interviews within the SWAP trial

Gwenllian Wynne-Jones, NIHR Research Fellow, Arthritis Research, UK Primary Care Centre, Research Institute for Primary Care & Health Sciences, Keele University, Keele, U.K.

Do prognostic factors for receiving wage replacement benefits differ between older and younger workers?
Fahad Algarni, Assistant Professor, Rehabilitation Science Department, King Saud University, Riyadh, Saudi Arabia

Determinants of work participation in older workers with musculoskeletal disorders: results from a systematic review of prognostic studies

Ivan Steenstra, Research Facilitator, Ted Rogers School of Management, Ryerson University, Toronto, Canada

Role of occupational health clinics in the prevention of work-related musculoskeletal disorders in an information technology company

Deepak Sharan, Medical Director, Orthopaedics, Rehabilitation & Ergonomics, RECOUP Neuromusculoskeletal Rehabilitation Centre, Bangalore, India

Room 202A

Management of work-related MSDs and sustainable employment – Session 4

Moderator: Ben Amick, Senior Scientist, Institute for Work & Health, Toronto, Canada

The persisting benefit of early or immediate return to work on back pain and function after controlling for multiple confounds

William Shaw, Senior Principal Research Scientist, Center for Disability Research, Liberty Mutual Research Institute for Safety, Hopkinton, Mass., U.S.A.

The association of low physical exposure at work with excellent work ability in workers with neck pain
Stefan Oliv, Ergonomist, Occupational and Environmental Medicine, Department of Public Health and Community Medicine, University of Gothenburg, Gothenburg, Sweden

The risk of low-back pain caused by driving professions in a young adult population

Shlomo Moshe, Head of Occupational Medicine Department, Maccabi Healthcare Services, Holon, Israel

Workplace-based interventions and neck pain in office workers: a systematic review and meta-analysis

Xiaoqi Chen, PhD Student, Physiotherapy Department, University of Queensland Brisbane, Toowong, Australia

Tuesday, June 21
3:30pm - 5:00pm

Room 202B

Symposium 18 – Workplace interventions for sedentary work (Part 2)

Chair: Veerle Hermans, Professor and Department Head of Ergonomics at IDEWE, Vrije Universiteit Brussel, Brussels, Belgium

Feasibility of implementing a high intensity interval training program in an office environment

Steven Fischer, Professor, Kinesiology, University of Waterloo, Waterloo, Ont., Canada

Postural and physiological effects of dynamic office workstations

Rolf Ellegast, Deputy Director, Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Sankt Augustin, Germany

Workstation alternatives to reduce sitting time at work
Lidewij Renaud, PhD Candidate, Department of Public and Occupational Health, VU University Medical Center, EMGO Institute for Health and Care Research, Amsterdam, The Netherlands

Interventions to reduce sedentary behaviour and increase physical activity during productive work time: effects on work performance and metabolic and physiological outcomes

Maike Huysmans, Senior Researcher, Public and Occupational Health, VU University Medical Center, Amsterdam, The Netherlands

Room 203A

Symposium 19 – New methods for assessing risks for upper extremity MSDs (Part 2)

Chair: Carisa Harris Adamson, Director, Ergonomics Program, Center for Occupational and Environmental Health, University of California, Richmond, Calif., U.S.A.

The influence of repeated and fluctuating stress on fatigue life of musculoskeletal tissues

Sean Gallagher, Associate Professor, Industrial and Systems Engineering, Auburn University, Auburn, Ala., U.S.A.

Automated computer vision exposure analysis for repetitive motion jobs

Robert Radwin, Professor, Department of Biomedical Engineering, University of Wisconsin-Madison, Madison, Wis., U.S.A.

A time-weighted approximation of total demand to determine maximum acceptable efforts across a combination of different tasks

Jim Potvin, Professor, Kinesiology, McMaster University, Hamilton, Ont., Canada

Using the TLV for HAL and the Strain Index to quantify risk of CTS for workers with job rotation

Jay Kapellusch, Associate Professor, College of Health Sciences, University of Wisconsin – Milwaukee, Milwaukee, U.S.A.

Tuesday, June 21
3:30pm - 5:00pm

Room 203B

Measuring exposures in a new world of work – Session 8

Moderator: Richard Wells, Professor, Department of Kinesiology, Faculty of Applied Health Sciences, University of Waterloo, Waterloo, Ont., Canada

Factors affecting the use of IMUs in forearm rotation assessment

Andrew Lagree, York University, Toronto, Canada

Trapezius oxygenation and hemodynamics during work: a field study using EMG and near infrared spectroscopy (NIRS)

Judith Gold, Data Scientist and Epidemiology Consultant, Gold Standard Research Consulting, Philadelphia, Pa., U.S.A.

Evaluation of two types of reference contraction on recordings of forearm extensor muscle activity

Camilla Dahlgvist, Division of Occupational and Environmental Medicine, Lund University Hospital, Lund, Sweden

Is there a best way to crank a lever? The scapula posture perspective

Jia-Hua Lin, Research Ergonomist, SHARP Program, Washington State Department of Labour and Industries, Olympia, Wash., U.S.A.

Room 204A

Epidemiology of work-related MSDs – Session 8

Moderator: Allard van der Beek, Professor and Department Vice-Head, EMGO Institute for Health and Care Research, VU University Medical Center, Amsterdam, The Netherlands

Long-term symptomatic, functional and work outcomes of CTS among carpenters

Alfred Franzblau, Professor, Department of Environmental Health Sciences, University of Michigan School of Public Health, Ann Arbor, Mich., U.S.A.

Musculoskeletal disorders and total occupational exposure in commercial lobstering

Scott Fulmer, Doctoral Candidate, Work Environment Department, University Massachusetts Lowell, Lowell, Mass., U.S.A.

Neck and upper extremity pain in sonographers: associations with occupational factors

Jenny Gremark-Simonsen, Physiotherapist, Division of Occupational and Environmental Medicine, Lund University, Lund, Sweden

Exposure–response relationships for work-related neck and shoulder musculoskeletal disorders: an analysis of pooled uniform data sets

Inger Arvidsson, Ergonomist, Occupational Environmental Medicine, Malmo, Sweden

Association between more sitting time at work and favorable changes in neck-shoulder pain among blue-collar workers

Andreas Holtermann, Professor, Physical Workload and Musculoskeletal Disorders, National Research Centre for the Working Environment, Copenhagen, Denmark

Tuesday, June 21
3:30pm - 5:00pm

Room 204C

Emerging issues in the prevention and management of work-related MSDs – Session 8

Moderator: Sheilah Hogg-Johnson, Associate Scientific Director and Senior Scientist, Institute for Work & Health, Toronto, Canada

Prescription analgesic patterns before and after a workers' compensation claim: a historical population-based cohort study of workers with low-back pain disorders in British Columbia

Nancy Carnide, Research Associate, Institute for Work & Health, Toronto, Canada

Is there an association between temporal patterns of sitting and low back pain? A cross-sectional study
Mette Korshøj, Researcher, National Research Centre for the Working Environment, Copenhagen, Denmark

The effect of leisure-time physical activity on sciatica: a systematic review and meta-analysis
Rahman Shiri, Senior Scientist, Finnish Institute of Occupational Health, Helsinki, Finland

A randomized controlled pilot study of the effectiveness of wearing unstable shoes on reducing low-back pain and disability in nurses
Edgar Vieira, Assistant Professor, Department of Physical Therapy, Florida International University, Miami, U.S.A.

Wednesday, June 22

7:30 - 8:30am	Breakfast
8:30 - 10:00am	Special Guest Address: Kevin Flynn, Ontario Minister of Labour / Keynote Speaker: Dr. Jack Callaghan
10:00 - 10:30am	Break
10:30am - 12:00pm	Symposia and Sessions
12:00 - 1:30pm	Lunch
1:30 - 3:00pm	Symposia and Sessions
3:00 - 3:30pm	Break
3:30 - 5:00pm	Symposia and Sessions
5:00pm onwards	Social Events: Conference Dinner (6:45pm)

Location	10:30am - 12:00pm	1:30 - 3:00pm	3:30 - 5:00pm
Ballroom B	Symposium 20 Biomechanics of the upper extremities during mobile IT work (Part 4): workstations and mobility II Chair: Pascal Madeleine	Symposium 23 Sustainable prevention of work-related MSDs: gender analysis and development of effective interventions (Part 1) Chair: Marie Laberge	Symposium 27 Sustainable prevention of work-related MSDs: gender analysis and development of effective interventions (Part 2) Chair: Marie Laberge
201A	Symposium 21 Models of work-related musculoskeletal disorders: a roundtable discussion for new development Chair: Mats Hagberg	Symposium 24 Expanding OHS impacts: the commercialization of leading-edge MSD research and knowledge Chair: Kim Slade	Symposium 28 Physical load risk assessment: methods for practitioners Chair: Marjolein Douwes
201B	Field evaluations (<i>Session 6</i>) Moderator: Monique Frings-Dresen	Field evaluations (<i>Session 7</i>) Moderator: Jim Potvin	Field evaluations (<i>Session 8</i>) Moderator: Chris McLeod
201C	Symposium 22 Physical exposure and back disorders in the occupational life Chair: Matthias Jaeger		Management and sustainable employment (<i>Session 6</i>) Moderator: Ben Amick
202A	Measuring exposures (<i>Session 9</i>) Moderator: Susan Stock	Symposium 25 Motor variability in working life: determinants and effects on health and performance (Part 1) Chair: Divya Srinivasan	Symposium 29 Motor variability in working life: determinants and effects on health and performance (Part 2) Chair: Divya Srinivasan
202B	Measuring exposures (<i>Session 10</i>) Moderator: Dorcas Beaton	Measuring exposures (<i>Session 11</i>) Moderator: Alberto Caban-Martinez	Measuring exposures (<i>Session 12</i>) Moderator: Lope H. Barrero
203A	Biology (<i>Session 3</i>) Moderator: Laura Punnett	Symposium 26 Cohort studies using technical field measurements of sedentary work and/or occupational physical activity: protocols, experiences, results and prospects (Part 1) Chair: Andreas Holtermann	Symposium 30 Cohort studies using technical field measurements of sedentary work and/or occupational physical activity: protocols, experiences, results and prospects (Part 2) Chair: Andreas Holtermann
203B	Emerging issues (<i>Session 9</i>) Moderator: Catherine Trask	Emerging issues (<i>Session 10</i>) Moderator: Roberta Bonfiglioli	Emerging issues (<i>Session 11</i>) Moderator: Roberta Bonfiglioli
204A	Epidemiology (<i>Session 9</i>) Moderator: Judith Gold	Epidemiology (<i>Session 11</i>) Moderator: Dwayne Van Eerd	Epidemiology (<i>Session 12</i>) Moderator: Svend Erik Mathiasen
204C	Epidemiology (<i>Session 10</i>) Moderator: Chris McLeod	Management and sustainable employment (<i>Session 5</i>) Moderator: Kim Cullen	Management and sustainable employment (<i>Session 7</i>) Moderator: Dwayne Van Eerd

Wednesday, June 22

10:30am - 12:00pm

Ballroom B

Symposium 20 – Biomechanics of the upper extremities during mobile IT work (Part 4): workstations and mobility II

Chair: Pascal Madeleine, Professor, Department of Health Science and Technology, Aalborg University, Aalborg, Denmark

Effect of active pauses on muscle activation pattern and muscle oxygenation in women with and without trapezius myalgia doing repetitive task

Leticia Bergamin Januario, PhD Student, Department of Physical Therapy, Federal University of São Carlos, São Carlos, Brazil

Use of sit-stand stations during the first two months after their introduction

Franca Barbieri Dechristian, PhD Student, Department of Physical Therapy, Federal University of São Carlos, São Carlos, Brazil

Sit-stand workstations and training: examining the role of user control

Michelle Robertson, Research Scientist, Liberty Mutual Research Institute for Safety, Boston, U.S.A.

Room 201A

Symposium 21 – Models of work-related musculoskeletal disorders: a roundtable discussion for new development

Chair: Mats Hagberg, Professor and Chief Physician, Occupational and Environmental Medicine, University of Gothenburg, Gothenburg, Sweden

Modelling personal and occupational factors in musculoskeletal disorders

Rahman Shiri, Senior Scientist, Finnish Institute of Occupational Health, Helsinki, Finland

Modelling recovery from work-related musculoskeletal disorders through “intelligent” workplace exercise
Karen Sjøgaard, Professor, Center for Muscle and Joint Health, University of Southern Denmark, Odense, Denmark

The “pyramid of disability” as a conceptual model for work-related musculoskeletal disorders

Bradley Evanoff, Professor of Occupational, Industrial and Environmental Medicine, Director of the Division of General Medical Sciences, Washington University School of Medicine, St. Louis, U.S.A.

Modelling work-related musculoskeletal disorders from a health economic perspective: the direct and indirect costs at different levels

Mats Hagberg, Professor and Chief Physician, Occupational and Environmental Medicine, University of Gothenburg, Gothenburg, Sweden.

Wednesday, June 22

10:30am - 12:00pm

Room 201B

Field evaluations of MSD prevention policies, programs and practices – Session 6

Moderator: Monique Frings-Dresen, Professor of Occupational Health and Medicine, Coronel Institute of Occupational Health, Academic Medical Center, Amsterdam, The Netherlands

Effects of workplace-based physical exercise on muscular capacity and symptoms in office workers
Tatiano Sato, Professor, Department of Physical Therapy Department, Federal University of São Carlos, São Carlos, Brazil

Rotator cuff tendinopathy in supermarket cashiers
Florentino Serranheira, Ergonomics Professor, Escola Nacional de Saúde Pública, Universidade Nova de Lisboa, Lisbon, Portugal

Implementation of a worksite-adapted physical activity program targeting trunk muscle endurance and flexibility among vineyard workers
Romain Balaguier, PhD Student, Department of Health Science and Technology, University of Grenoble Alpes, Grenoble, France

Convincing stakeholders to make changes in work situations through modification in their representations
Valerie Albert, PhD Candidate, Health and Society Institute, Université of Québec in Montréal, Montreal, Canada

Room 201C

Symposium 22 – Physical exposure and back disorders in occupational life

Chair: Matthias Jaeger, Head, Biomechanical Ergonomics Work Group, IfADo–Leibniz Research Centre for Working Environment and Human Factors, Leibniz, Germany

Co-chair: Andreas Seidler, Director, Institute and Policlinic of Occupational and Social Medicine, Dresden University of Technology, Dresden, Germany

Background of epidemiological studies in Germany to analyze dose-response relations between biomechanical low-back load and lumbar-disease risk
Matthias Jaeger, Head, Biomechanical Ergonomics Work Group, IfADo–Leibniz Research Centre for Working Environment and Human Factors, Leibniz, Germany

Multi-model methodology for estimating cumulative dose models to analyze physical exposure effects
Peter Morfeld, Head, Evonik Technology & Infrastructure, GmbH Institute for Occupational Epidemiology and Risk Assessment (IERA), Essen, Germany

Dose-response relations between lifetime physical exposures to manual materials handling or trunk-inclined postures and lumbar-spine diseases
Andreas Seidler, Director, Institute and Policlinic of Occupational and Social Medicine, Dresden University of Technology, Dresden, Germany

Simplified procedure for lumbar-disc compressive force estimation in cumulative spinal-dose calculations
Rolf Ellegast, Deputy Director, Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Sankt Augustin, Germany

Application of cumulative dose models to indicate occupational back exposure in praxis
Ralf Schick, Head of Physical Stress Unit, Department of Prevention, German Social Accident Insurance Institution for Trade and Logistics, Mannheim, Germany

Wednesday, June 22

10:30am - 12:00pm

Room 202A

Measuring exposures in a new world of work – Session 9

Moderator: Susan Stock, Head, Scientific Group on Work-Related Musculoskeletal Disorders, Institut National de Santé Publique du Québec, Montreal, Canada

A cross-sectional study of alternations between physical and mental tasks

Helena Jahncke, Post-doctoral Researcher, Faculty of Health and Occupational Studies, University of Gävle, Gävle, Sweden

Assessing return-to-work status questionnaires in an occupational rehabilitation population

Eleanor Boyle, Associate Professor, Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense, Denmark

Different EMG normalization methods and implications for field-based data acquisition of muscle activity

Ornwipa Thamsuwan, PhD Student, University of Washington, Seattle, U.S.A.

Influence of different visual display unit configurations on physiology and performance

Mark Brütting, Research Officer, Ergonomics Unit, Institute for Occupational Safety and Health of the German Social Accident Insurance, Sankt Augustin, Germany

Room 202B

Measuring exposures in a new world of work – Session 10

Moderator: Dorcas Beaton, Senior Scientist, Institute for Work & Health, Toronto, Canada

The DASH (Disabilities of the Arm, Shoulder and Hand) at work: a review of its use and measurement properties

Carol Kennedy, Research Associate, Institute for Work & Health, Toronto, Canada

Predicting shoulder fatigue using a three-compartment model with graded motor units

Alison McDonald, PhD Student, McMaster University, Hamilton, Canada

The quantitative measurement of workload to define exposure thresholds in cumulative trauma disorders applied in rotator cuff injury: a cohort study

David Alvarez-Rincón, Principal Board Member, Governmental Workers' Compensation Board, Ministry of Work Valle del Cauca, Cali, Colombia

The Work-Related Questionnaire for the UPper extremity (WORQ-UP): factor analysis and internal consistency.

Paul Kuijer, Assistant Professor, Coronel Institute of Occupational Health, Academic Medical Center, Amsterdam, The Netherlands

Wednesday, June 22

10:30am - 12:00pm

Room 203A

Biology of work-related MSDs – Session 3

Moderator: Laura Punnett, Professor, Department of Work Environment, University of Massachusetts, Lowell, Mass., U.S.A.

Associations between biomarkers and changes in pain and functional ratings in subjects with unspecific neck pain
Fredrik Hellström, Researcher, Centre for Musculoskeletal Research, Department of Occupational and Public Health Sciences, University of Gälve, Gälve, Sweden

The Concavity Index: a novel approach for quantifying intervertebral disc degeneration
Richard Sesek, Associate Professor, and Mark Schall, Assistant Professor, Department of Industrial and Systems Engineering, Auburn University, Auburn, Ala., U.S.A.

Differentiating lumbar discvertebral changes associated with occupational biomechanical overload: integrated magnetic resonance imaging appraisal
Roberta Bonfiglioli, Associate Professor, Department of Medical and Surgical Sciences, Occupational Medicine, University of Bologna, Bologna, Italy

An evaluation of occupational loads that contribute to spine, disc degeneration
Youngki Kim, Assistant Professor, Occupational and Environmental Medicine, Pusan National University, Yangsan, South Korea

Room 203B

Emerging issues in the prevention and management of work-related MSDs – Session 9

Moderator: Catherine Trask, Assistant Professor, Canadian Centre for Health and Safety in Agriculture (CCHSA), University of Saskatchewan, Saskatoon, Canada

Using digital video analysis to identify and model firefighter trunk and knee postures during a lift task
Ze Lu, Rehabilitation Science, McMaster University, Hamilton, Canada

Postural analysis and factors of musculoskeletal risk among paramedics inside ambulances
Martha Villa, University of Guadalajara, San Luis Potosí, Mexico

Perspectives of occupational health and safety knowledge users on research use
Dwayne Van Eerd, Associate Scientist, Institute for Work & Health, Toronto, Canada

Mixed approach for MSD prevention: a meat-cutting study
Adriana Savescu, Researcher, Working Life Department, French National Research and Safety Institute (INRS), Vandoeuvre, France

Wednesday, June 22

10:30am - 12:00pm

Room 204A

Epidemiology of work-related MSDs – Session 9

Moderator: Judith Gold, Data Scientist and Epidemiology Consultant, Gold Standard Research Consulting, Philadelphia, Pa., U.S.A.

Musculoskeletal symptoms and physical exposures of dental hygiene students during transition into practice: a two-year prospective cohort study
Jennifer Garza, Ergonomist, UConn Health, Manchester, Conn., U.S.A.

Musculoskeletal disorders in physical and occupational therapists in long-term care work
Laura Punnett, Professor, Department of Work Environment, University of Massachusetts, Lowell, Mass., U.S.A.

Lower extremity symptom persistence and recovery among nursing home workers
Alicia Kurowski, Postdoctoral Research Fellow, Department of Work Environment, University of Massachusetts, Lowell, Mass., U.S.A.

Relationship between social support and upper limb pain in employed and self-employed health-care therapists in Ireland
Dervla Hogan, Manager, Department of Epidemiology and Public Health, University College Cork, Western Gateway Building, Cork, Ireland

Room 204C

Epidemiology of work-related MSDs – Session 10

Moderator: Chris McLeod, Assistant Professor, School of Population and Public Health, University of British Columbia, Vancouver, Canada

Trajectories of low-back pain and their impact from adolescence to adulthood
Pieter Coenen, Post-doctoral Researcher, School of Physiotherapy and Exercise Science, Curtin University, Perth, Australia

Multi-site musculoskeletal pain among young technical school students entering working life
Therese Nordberg Hanvold, Researcher, Department of Occupational Medicine and Epidemiology, National Institute of Occupational Health, Oslo, Norway

Occupational influences on progression of spondylolysis and spondylolisthesis in young adults
Shlomo Moshe, Head, Occupational Medicine Department, Maccabi Healthcare Services, Holon, Israel

Influence of physical and psychosocial work environment throughout life and cognitive capacity in mid-life for labour market attachment among senior workers
Emil Sundstrup, Researcher, Department of Musculoskeletal Disorders, National Research Centre for the Working Environment, Copenhagen, Denmark

Wednesday, June 22

1:30pm - 3:00pm

Ballroom B

Symposium 23 – Sustainable prevention of work-related MSDs: gender analysis and development of effective interventions (Part 1)

Chair: Marie Laberge, Assistant Professor, School of Rehabilitation, University of Montreal, Montreal, Canada

Sex/gender and motor control: what should you know before planning an intervention?

Julie Côté, Associate Professor, Department of Kinesiology and Physical Education, McGill University, Montreal, Canada

Development of integrative prevention to improve workers' health: a gender-sensitive approach

Benedicte Calvet, PhD Candidate, University of Quebec in Montreal, Montreal, Canada

Gender differences in duration of work absence for non-traumatic work-related musculoskeletal disorders

Susan Stock, Head, Scientific Group on Work-Related Musculoskeletal Disorders, Institut National de Santé Publique du Québec, Montreal, Canada

When management indicators make women's work invisible: the case of personal support workers in Ontario

Martin Chadoin, PhD Student, Institute of Health and Society, University of Quebec in Montreal, Montreal, Canada

Room 201A

Symposium 24 – Expanding OHS impacts: the commercialization of leading-edge MSD research and knowledge

Chair: Kim Slade, Director, Research and Product Development, Product Services, Public Services Health and Safety Association, Toronto, Canada

Making research practical: an entrepreneur's view of research

Glenn Cullen, Vice-President, Corporate Programs and Product Development, Public Services Health and Safety Association, Toronto, Canada

Research and business: defining market need and research question

Lora Cavuoto, Assistant Professor, Industrial and Systems Engineering, University at Buffalo, Williamsville, N.Y., U.S.A.

Successful industry-research partnership: adapting to the changing landscape

Alison Burgess, Senior Research Partnerships Officer, Office of Research Services, University of Ontario Institute of Technology, Oshawa, Ont., Canada

Engaging partners to develop serious game

Michael Williams-Bell, Professor, School of Health and Community Services, Durham College Oshawa, Ont., Canada

Wednesday, June 22

1:30pm - 3:00pm

Room 201B

Field evaluations of MSD prevention policies, programs and practices – Session 7

Moderator: Jim Potvin, Professor, Department of Kinesiology, McMaster University, Hamilton, Ont., Canada

Influences of duty cycle and tool mass during overhead work

Helen Nogueira, PhD Student, Department of Physical Therapy, Federal University of São Carlos, São Carlos, Brazil

Prismatic glasses and the reduction of neck pain in dental personnel

Agneta Lindegard Andersson, Senior Developer, Institute of Stress Medicine, Gothenburg, Sweden

Do active pauses change the pattern of electromyographic activity during repetitive manual task?

Leticia Bergamin Januario, PhD Student, Department of Physical Therapy, Federal University of São Carlos, São Carlos, Brazil

A union-driven MSD prevention project

Rosemary Ku, Student, and Philip Bigelow, Associate Professor, School of Public Health and Health Systems, University of Waterloo, Waterloo, Ont., Canada

Room 202A

Symposium 25 – Motor variability in working life: determinants and effects on health and performance (Part 1)

Co-chair: Divya Srinivasan, Assistant Professor, Department of Industrial and Systems Engineering, Virginia Polytechnic Institute and State University, Blacksburg, Va., U.S.A.

Co-chair: Tessy Luger, PhD Candidate, VU University Amsterdam, Amsterdam, The Netherlands

Gender differences in muscle-activity responses to a fatiguing short-cycle repetitive task

Divya Srinivasan, Assistant Professor, Department of Industrial and Systems Engineering, Virginia Polytechnic Institute and State University, Blacksburg, Va., U.S.A.

Influence of posture variation in a repetitive manual task on maximal acceptable work pace and upper body kinematics

Tessy Luger, PhD Candidate, VU University Amsterdam, Amsterdam, The Netherlands

Identification of individual working styles in a long-cycle assembly task using kinematic and EMG variables.

Jennie Jackson, PhD Candidate, Department of Occupational and Public Health Sciences, University of Gävle, Gävle, Sweden

Variability in repetitive and fatigued shoulder work

Peter Keir, Professor, Department of Kinesiology, McMaster University, Hamilton, Ont., Canada

Wednesday, June 22

1:30pm - 3:00pm

Room 202B

Measuring exposures in a new world of work – Session 11

Moderator: Alberto Caban-Martinez, Assistant Professor, Public Health Sciences, Miller School of Medicine, University of Miami, Miami, U.S.A.

Quantifications of body postures of forklift truck operators
Ming-Lun Lu, Research Ergonomist, National Institute for Occupational Safety and Health (NIOSH), Cincinnati, U.S.A.

Biomechanical evaluation of hotel luxury bed making while using mattress lift tool and fitted sheets
Carisa Harris Adamson, Director, Ergonomics Program, Center for Occupational and Environmental Health, University of California, Richmond, Calif., U.S.A.

Full-shift and task-specific ergonomic exposure assessment of posture and muscle activity among dairy parlour workers in U.S. large herd operations
David Douphrate, Assistant Professor of Epidemiology, Human Genetics and Environmental Sciences, School of Public Health, University of Texas, San Antonio, U.S.A.

Room 203A

Symposium 26 – Cohort studies using technical field measurements of sedentary work and/or occupational physical activity: protocols, experiences, results and prospects (Part 1)

Chair: Andreas Holtermann, Professor, Physical Workload and Musculoskeletal Disorders, National Research Centre for the Working Environment, Copenhagen, Denmark

The Danish Physical Activity Cohort with Objective measurements: cohort profile
Andreas Holtermann, Professor, Physical Workload and Musculoskeletal Disorders, National Research Centre for the Working Environment, Copenhagen, Denmark

Occupational differences in sedentary and moderate/vigorous activity exposure of young adults
Leon Straker, Professor, Physiotherapy and Exercise Science, Curtin University, Perth, Australia

Research protocol and profile of the “Danish observational study of eldercare work and musculoskeletal disorders” (DOSES)
Kristina Karstad, PhD Student, Department of Musculoskeletal Disorders and Physical Workload, National Research Centre for the Working Environment, Copenhagen, Denmark

Wednesday, June 22

1:30pm - 3:00pm

Room 203B

Emerging issues in the prevention and management of work-related MSDs – Session 10

Moderator: Roberta Bonfiglioli, Associate Professor, Department of Medical and Surgical Sciences, Occupational Medicine, University of Bologna, Bologna, Italy

Experiences of work ability in young workers: an exploratory interview study

Maria Boström, PhD Student, Occupational and Environmental Medicine, University of Gothenburg, Gothenburg, Sweden

Work and children: what do we not know – but need to know – about musculoskeletal impacts?

Susan Gunn, (retired) Senior Technical Specialist - Hazardous Child Labour, International Programme on the Elimination of Child Labour, International Labour Organization (ILO), Geneva, Switzerland

NIOSH's musculoskeletal health research program

Stephen Hudock, Manager, Musculoskeletal Disorders Health and Safety Cross-Sector, National Institute for Occupational Safety and Health (NIOSH), Cincinnati, U.S.A.

Association of frailty and pre-frailty with worklessness among 50- to 64-year-olds

Karen Walker-Bone, Director, Arthritis Research UK /MRC Centre for Musculoskeletal Health and Work, Southampton, U.K.

Room 204A

Epidemiology of work-related MSDs – Session 11

Moderator: Dwayne Van Eerd, Associate Scientist, Institute for Work & Health, Toronto, Canada

Contribution of individual, physical, work-related and psychosocial variables to work ability in office workers
Venerina Johnston, Associate Professor, School of Health and Rehabilitation Sciences, University of Queensland, Brisbane, Australia

The role of individual and organizational factors in completion of two workplace-based health promotion programs among office workers

Alyssa Welch, Senior Research Technician, School of Health and Behavioural Sciences, University of Queensland, St Lucia, Australia

The risk of work-related carpal tunnel syndrome by occupational type in the U.S., controlling for related comorbidities

Nancy Baker, Associate Professor, Department of Occupational Therapy, University of Pittsburgh, Pittsburgh, U.S.A.

Task precision and time-dependent changes of motor variability during a sustained bimanual reaching task

Alessia Longo, PhD Student, Donders Center for Brain, Cognition and Behaviour, Radboud University, Nijmegen, The Netherlands

Wednesday, June 22
1:30pm - 3:00pm

Room 204C

Management of work-related MSDs and sustainable employment – Session 5

Moderator: Kim Cullen, Research Coordinator and Knowledge Exchange Associate, Institute for Work & Health, Toronto, Canada

Effectiveness of two different modes of onsite ergonomics intervention to prevent work-related musculoskeletal disorders

Deepak Sharan, Medical Director, Orthopaedics, Rehabilitation & Ergonomics, RECOUP Neuromusculoskeletal Rehabilitation Centre, Bangalore, India

Effectiveness of an ergonomic intervention program for reducing work-related musculoskeletal disorders among community nurses in Hong Kong

Billy So, Clinical Associate in Physiotherapy, Department of Rehabilitation Sciences, Hong Kong Polytechnic University, Kowloon, Hong Kong, China

Effects of ergomotor intervention on motor control in the neck and shoulder region during functional movements in people with work-related neck-shoulder disorders

Grace Szeto, Associate Professor, Rehabilitation Sciences, Hong Kong Polytechnic University, Hong Kong, China

A systematic review on onsite fitness programs in the prevention of work-related musculoskeletal disorders

Deepak Sharan, Medical Director, Orthopaedics, Rehabilitation & Ergonomics, RECOUP Neuromusculoskeletal Rehabilitation Centre, Bangalore, India

Wednesday, June 22

3:30pm - 5:00pm

Ballroom B

Symposium 27– Sustainable prevention of work-related MSDs: gender analysis and development of effective interventions (Part 2)

Chair: Marie Laberge, Assistant Professor, School of Rehabilitation, University of Montreal, Montreal, Canada

How is gender taken into account in the action plans of participatory ergonomic interventions aimed at preventing work-related MSDs?

Valerie Albert, PhD Candidate, Health and Society Institute, University of Quebec in Montreal, Montreal, Canada

Utilization-focused evaluation of the implementation of OHS learning tools employed by teachers in the Quebec work-oriented training path: is gender considered?

Marie Laberge, Assistant Professor, School of Rehabilitation, University of Montreal, Montreal, Canada

Work-related MSD prevention and education: why the supervisory tools used by teachers in charge of trainee placements in male-dominated training for semi-skilled trades should be gender-sensitive

Aurelie Tondoux, Research Assistant, Research Center, Sainte-Justine University Hospital, Montreal, Canada

Room 201A

Symposium 28– Physical load risk assessment methods for practitioners

Chair: Marjolein Douwes, Senior Scientist, Work, Health and Technology, TNO, Rijswijk, The Netherlands

Co-Chair: Marianna Schust, Scientific Officer, Prevention of Occupational Diseases, Federal Institute for Occupational Safety and Health, Berlin, Germany

Facilitating improvement measures in manual handling using the RAMP tool

Linda Rose, Associate Professor, School of Technology and Health, Royal Institute of Technology (KTH), Stockholm, Sweden

An OHS practitioner tool for improving pushing and pulling operations

Carl Lind, PhD Student, School of Technology and Health, Royal Institute of Technology (KTH), Stockholm, Sweden

Study protocol of the validation of new Key Indicator Methods

Andre Klussmann, Head, Department of Work and Health, Institute of Occupational Health, Safety and Ergonomics (ASER), Wuppertal, Germany

Pretesting of new Key Indicator Methods in Germany using techniques of qualitative research

Felix Brandstaedt, Research Scientist and Project Manager, Division 3 Work and Health, Federal Institute for Occupational Safety and Health (BAuA), Berlin, Germany

Towards a better understanding of exposure limits for occupational postures

Pieter Coenen, Post-doctoral Researcher, School of Physiotherapy and Exercise Science, Curtin University, Perth, Australia

A new risk assessment method for push and pull tasks for practitioners

Marjolein Douwes, Senior Scientist, Work, Health and Technology, TNO, Rijswijk, The Netherlands

Wednesday, June 22

3:30pm - 5:00pm

Room 201B

Field evaluations of MSD prevention policies, programs and practices – Session 8

Moderator: Chris McLeod, Assistant Professor, School of Population and Public Health, University of British Columbia, Vancouver, Canada

Workplace practices aimed at preventing prolonged work disability in workers compensated for work-related musculoskeletal disorders: a multiple case study
Iuliana Nastasia, Researcher, Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST), Montreal, Canada

Does the organization make a difference? An evaluation of women's work environment program
Lena Niemi Birgersdotter, Investigator, Department of Regulations, Swedish Work Environment Institute, Stockholm, Sweden

Effectiveness of a matching-fund program to motivate workplace health and safety improvements
Alysha Meyers, Epidemiologist, Division of Surveillance, Hazard Evaluations and Field Studies, National Institute for Occupational Safety and Health (NIOSH), Cincinnati, U.S.A.

A cohort study of a 10-week exercise intervention to improve work posture and neck/shoulder symptoms in dental health students
Venerina Johnston, Associate Professor, School of Health and Rehabilitation Sciences, University of Queensland, Brisbane, Australia

Room 201C

Management of work-related MSDs and sustainable employment – Session 6

Moderator: Ben Amick, Senior Scientist, Institute for Work & Health, Toronto, Canada

What's new in return to work (RTW) for musculoskeletal, pain-related and mental health conditions?
Kim Cullen, Research Coordinator and Knowledge Exchange Associate, Institute for Work & Health, Toronto, Canada

Returning to work in spite of conflicts: an exploration of different types of decision-making in work rehabilitation after a chronic musculoskeletal disorder
Marie-Michelle Gouin, Postdoctoral Fellow, Centre for Action in Work Disability Prevention and Rehabilitation (CAPRIT), Sherbrooke University, Sherbrooke, Que., Canada

Paul Kuijjer, Assistant Professor, Coronel Institute of Occupational Health, Academic Medical Center Amsterdam, Amsterdam, The Netherlands

Exploring the diagnostic value of heart rate variability for sustained employability
Marianne Six Dijkstra, Researcher/Lecturer, Physiotherapy, Saxion University of Applied Sciences, Enschede, The Netherlands

A novel chamber lid removal tool for reducing spinal and shoulder loading
Mohammad Abdoli-Eramaki, Associate Professor, School of Occupational and Public Health, Ryerson University, Toronto, Canada

Wednesday, June 22

3:30pm - 5:00pm

Room 202A

Symposium 29 – Motor variability in working life: determinants and effects on health and performance (Part 2)

Chair: Divya Srinivasan, Assistant Professor, Department of Industrial and Systems Engineering, Virginia Polytechnic Institute and State University, Blacksburg, Va., U.S.A.

Co-Chair: Tessy Luger, PhD Candidate, VU University Amsterdam, Amsterdam, The Netherlands

Effects of modified computer work posture on upper body muscle activity variability

Julie Côté, Associate Professor, Department of Kinesiology and Physical Education, McGill University, Montreal, Canada

Variability in pattern of muscular activity during a fatiguing repetitive task

Afshin Samani, Associate Professor, Department of Health Science and Technology, Aalborg University, Aalborg, Denmark

Variation in torso, head, neck and shoulder postures during computer vs. non-computer interactions during office work.

Jennifer Garza, Ergonomist, Department of Medicine, University of Connecticut, Manchester, Conn., U.S.A.

Motor variability in relation to physical activity

Pascal Madeleine, Professor, Department of Health Science and Technology, Aalborg University, Aalborg, Denmark

Room 202B

Measuring exposures in a new world of work – Session 12

Moderator: Lope H. Barrero, Associate Professor, Industrial Engineering, Pontificia Universidad Javeriana, Bogotá, Colombia

Different autonomic responses to occupational and leisure time physical activity among blue-collar workers

Tatiana Sato, Professor, Department of Physical Therapy Department, Federal University of São Carlos, São Carlos, Brazil

Muscle fatigue assessment in leather-cutting tasks: comparison of manual and machine-assisted operations.

J. Nieves Serratos Perez, Head, Department of Applied Work Sciences, University of Guanajuato, Leon, Mexico

Physical workload of garbage collectors in two organization modes: one loader vs. two loaders

Kévin Desbrosses, Researcher, Working Life Department, French National Research and Safety Institute (INRS), Vandoeuvre, France

Sustained low physical exposure in a lean process plant

Malin Håkansson, PhD Student, Department of Health Systems Engineering, Royal Institute of Technology (KTH), Stockholm, Sweden

Use of activity moderators to understand falls

Kermit Davis, Associate Professor, University of Cincinnati, Cincinnati, U.S.A.

Wednesday, June 22

3:30pm - 5:00pm

Room 203A

Symposium 30 – Cohort studies using technical field measurements of sedentary work and/or occupational physical activity: protocols, experiences, results and prospects (Part 2)

Chair: Andreas Holtermann, Professor, Physical Workload and Musculoskeletal Disorders, National Research Centre for the Working Environment, Copenhagen, Denmark

Design, methods and preliminary results from a study of objectively measured work exposure related to musculoskeletal health in physically demanding occupations

Bo Veiersted, Senior Researcher, Department of Work Psychology and Physiology, National Institute of Occupational Health, Oslo, Norway

Design and experiences of objective measurements of physical activity during retirement transition in the Finnish Retirement and Aging Study

Anna Pulakka, Research Fellow, Department of Public Health, University of Turku, Turku, Finland

Objective measurements of physical activity in the Norwegian HUNT Study

Paul Jarle Mork, Professor, Department of Public Health and General Practice, Norwegian University of Science and Technology, Trondheim, Norway

Thigh inclinometer measurements of 5,000 persons in the Swedish CardioPulmonary bioImage Study (SCAPIS)

Mikael Forsman, Professor, Institute of Environmental Medicine (IMM), Karolinska Institute, Stockholm, Sweden

Room 203B

Emerging issues in the prevention and management of work-related MSDs – Session 11

Moderator: Roberta Bonfiglioli, Associate Professor, Department of Medical and Surgical Sciences, Occupational Medicine, University of Bologna, Bologna, Italy

A practical program to mitigate and prevent computer-related MSDs in a fast-paced workplace

Suparna Damany, Guest Lecturer and Clinical Instructor, Department of Physical Therapy, DeSales University, Bethlehem, Pa., U.S.A.

A study of musculoskeletal disorders due to hand-held devices

Deepak Sharan, Medical Director, Orthopaedics, Rehabilitation & Ergonomics, RECOUP Neuromusculoskeletal Rehabilitation Centre, Bangalore, India

Effectiveness of an eye exercise program in the prevention of computer vision syndrome among computer workers

Deepak Sharan, Medical Director, Orthopaedics, Rehabilitation & Ergonomics, RECOUP Neuromusculoskeletal Rehabilitation Centre, Bangalore, India

Wednesday, June 22

3:30pm - 5:00pm

Room 204A

Epidemiology of work-related MSDs – Session 12

Moderator: Svend Erik Mathiassen, Professor, Centre for Musculoskeletal Research, University of Gävle, Gävle, Sweden

The impact of gender on surgical decision-making following workplace musculoskeletal injury

Andrea Marie Jones, PhD Candidate, School of Population and Public Health, University of British Columbia, Vancouver, Canada

Does the difficulty of a memory task interspersed between bouts of repetitive work influence recovery?

Svend Erik Mathiassen, Professor and Research Director, Centre for Musculoskeletal Research, University of Gävle, Gävle, Sweden

Factor analysis affecting knee symptoms and diseases of farmers in South Korea.

Donghee Shin, Medical Resident, Department of Occupational and Environmental, Green Hospital, Wonjin Foundation, Seoul, South Korea

Rural agriculture as a biopsychosocial context for low-back health: preliminary results of the Saskatchewan Farmers Back Study

Catherine Trask, Assistant Professor, Canadian Centre for Health and Safety in Agriculture (CCHSA), University of Saskatchewan, Saskatoon, Canada

Room 204C

Management of work-related MSDs and sustainable employment – Session 7

Moderator: Dwayne Van Eerd, Associate Scientist, Institute for Work & Health, Toronto, Canada

Participatory organizational intervention for improved use of assistive devices for patient handling: a single blinded cluster randomized controlled trial

Markus Due Jakobsen, Post-doctoral Researcher, National Research Centre for the Working Environment, Copenhagen, Denmark

Musculoskeletal disorders among hospital cleaning staff and preventing arrangements

Michael Holbach, Bezirk Unterfranken, Würzburg, Lohr am Main, Germany

Systematic review of prognostic factors for return to work in workers with subacute and chronic low-back pain

Ivan Steenstra, Research Facilitator, Ted Rogers School of Management, Ryerson University, Toronto, Canada

Thursday, June 23

7:30 - 8:30am	Breakfast
8:30 - 10:00am	Keynote Speaker: Dr. Julie Côté
10:00 - 10:30am	Break
10:30am - 12:00pm	Symposia and Sessions
12:00 - 1:30pm	Lunch and Closing Remarks
1:30pm onwards	Conference Over / Social Event: iDAPT Tour (2:30pm)

Location	10:30am - 12:00pm
Ballroom B	<p><i>Symposium 31</i></p> <p>Panel on gender, work and musculoskeletal disorders</p> <p>Chair: Joy MacDermid</p>
201A	<p>Management and sustainable employment (<i>Session 8</i>)</p> <p>Moderator: Richard Wells</p>
201B	<p>Field evaluations (<i>Session 9</i>)</p> <p>Moderator: Emma Irvin</p>
201C	<p>Biology (<i>Session 4</i>)</p> <p>Moderator: David Rempel</p>
202A	<p>Epidemiology (<i>Session 13</i>)</p> <p>Moderator: Catherine Trask</p>
202B	<p>Epidemiology (<i>Session 14</i>)</p> <p>Moderator: Deepak Sharan</p>
203A	<p>Management and sustainable employment (<i>Session 9</i>)</p> <p>Moderator: Kim Cullen</p>
203B	<p>Emerging issues (<i>Session 12</i>)</p> <p>Moderator: Mats Hagberg</p>
204A	<p>Emerging issues (<i>Session 13</i>)</p> <p>Moderator: Ann-Marie Dale</p>
204C	<p>Measuring exposures (<i>Session 13</i>)</p> <p>Moderator: Dongmug Kang</p>

Thursday, June 23

10:30am - 12:00pm

Ballroom B

Symposium 31– Panel on gender, work and musculoskeletal disorders

Chair: Joy MacDermid, Professor and Assistant Dean, School of Rehabilitation Sciences, McMaster University, Hamilton, Canada

Is it possible to measure gender when you don't have a measure of gender? Analyses of secondary data
Peter Smith, Senior Scientist, Institute for Work & Health, Toronto, Canada

Considering sex and gender in studies of recovery and return to work
Joy MacDermid, Professor and Assistant Dean, School of Rehabilitation Sciences, McMaster University, Hamilton, Canada

Considering sex and gender in applied ergonomics: firefighting as context
Kathryn Sinden, Postdoctoral Fellow, Department of Kinesiology and Physical Education, McGill University, Montreal, Canada

Considering sex and/or gender in structure and mechanisms of the musculoskeletal system
Julie Côté, Associate Professor, Department of Kinesiology and Physical Education, McGill University, Montreal, Canada

Considering sex and gender in occupational health policies and program
Mieke Koehoorn, Professor, School of Population and Public Health, University of British Columbia, Vancouver, Canada

Room 201A

Management of work-related MSDs and sustainable employment – Session 8

Moderator: Richard Wells, Professor, Department of Kinesiology, University of Waterloo, Waterloo, Ont., Canada

A method for the estimation of workers' risk of developing MSDs in early stages of process planning
Steven Fischer, Professor, Kinesiology, University of Waterloo, Waterloo, Ont., Canada

Building on good ideas: developing MSD interventions with residential builders
David Tappin, Senior Lecturer, School of Management, Massey University, Auckland, New Zealand

Analysis of worker strategies: a comprehensive understanding for sustainable prevention of work-related musculoskeletal disorders
Marie-Eve Major, Professor, University of Sherbrooke, Sherbrooke, Que., Canada

Workplace barriers to reducing incidence of musculoskeletal disorders
Jodi Oakman, Head, Public Health, La Trobe University, Melbourne, Australia

Thursday, June 23
10:30am - 12:00pm

Room 201B

Field evaluations of MSD prevention policies, programs and practices – Session 9

Moderator: Emma Irvin, Director of Research Operations, Institute for Work & Health, Toronto, Canada

Determinants of osteoarthritis linked to occupational radiography and epidemiologic surveillance: preliminary results of the D.O.L.O.R.E.S. pilot study
Samuel Huntley, Student, Miller School of Medicine, University of Miami, Miami, U.S.A.

The necessity for effective prevention of work-related MSDs by improving the present statistics system for occupational diseases
Minori Nakata, Researcher, Department of Rehabilitation Medicine, Kanazawa Medical University, Uchinada, Japan

The one-year effects of a workplace integrated care intervention for workers with rheumatoid arthritis
Allard van der Beek, Professor and Department Vice-Head, EMGO Institute for Health and Care Research, VU University Medical Center, Amsterdam, The Netherlands

Maximum acceptable weights for one-handed lifting and lowering tasks performed by male and female Chilean workers
Manuel Gutiérrez, Associate Professor, Unidad de Ergonomía, Facultad de Ciencias Biológicas, Universidad de Concepción, Concepción, Chile

Room 201C

Biology of work-related MSDs – Session 4

Moderator: David Rempel, Professor Emeritus of Medicine, Division of Occupational and Environmental Medicine, University of California at San Francisco, Richmond, Calif., U.S.A.

Median nerve affection during seasonal repetitive work with moderate force
Sorosh Tabatabaeifar, PhD Student, Department of Occupational Medicine, Aarhus University Hospital, Aarhus, Denmark

The prediction of health risks in heavy equipment vehicle operators based on average-continuous and cumulative-impulsive whole body vibration exposures
Peter Johnson, Professor, Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, U.S.A.

The relationship between muscle strength at retirement age and heavy manual work
Karen Walker-Bone, Director, Arthritis Research UK /MRC Centre for Musculoskeletal Health and Work, Southampton, U.K.

Assessment of an air-filled seat pad for reducing whole body vibration exposure in professional automobile drivers
Per Jonsson, Occupational Hygienist, Occupational and Environmental Medicine, University of Gothenburg, Gothenburg, Sweden

Thursday, June 23

10:30am - 12:00pm

Room 202A

Epidemiology of work-related MSDs – Session 13

Moderator: Catherine Trask, Assistant Professor, Canadian Centre for Health and Safety in Agriculture (CCHSA), University of Saskatchewan, Saskatoon, Canada

MSDs in Sweden: An analysis of sickness benefit applications to a non-profit insurance company
Michel Normark, Director, Analysis and Insurance Terms, AFA Insurance, Stockholm, Sweden

A follow-up study of the importance of occupational and personal factors for neck-shoulder pain among females
Inger Arvidsson, Researcher, Department of Occupational Environmental Medicine, Lund University, Lund, Sweden

Disability pension due to musculoskeletal disorders in men and women after long-term exposure to heavy physical workload
Katarina Kjellberg, Physiotherapist/Ergonomist, Centre for Occupational and Environmental Medicine, Stockholm County Council, Stockholm, Sweden

Room 202B

Epidemiology of work-related MSDs – Session 14

Moderator: Deepak Sharan, Medical Director, Orthopaedics, Rehabilitation & Ergonomics, RECOUP Neuromusculoskeletal Rehabilitation Centre, Bangalore, India

Frequency of compensation claims for carpal tunnel syndrome according to occupational category in a cohort of patients from surgical centres of Paris region
Emilie Chazelle, MSD Program Coordinator, French Institute for Public Health Surveillance (InVS), Saint-Maurice, France

The relationship between median nerve latency, biomechanical risk factors and work disability from carpal tunnel syndrome: a pooled prospective study
Carisa Harris Adamson, Director, Ergonomics Program, Center for Occupational and Environmental Health, University of California, Richmond, Calif., U.S.A.

Working with multisite chronic pain: findings from the MUSCLE (MUsculoskeletal Study of Construction workers' Longitudinal Exposures)
Alberto Caban-Martinez, Assistant Professor of Public Health Sciences, Miller School of Medicine, University of Miami, Miami, U.S.A.

Thursday, June 23

10:30am - 12:00pm

Room 203A

Management of work-related MSDs and sustainable employment – Session 9

Moderator: Kim Cullen, Research Coordinator and Knowledge Exchange Associate, Institute for Work & Health, Toronto, Canada

Computer vision-based postural ergonomic evaluation
SangHyun Lee, Associate Professor, Civil and Environmental Engineering, University of Michigan, Ann Arbor, Mich., U.S.A.

A critical review of the literature on the effectiveness of ergonomic interventions in preventing work-related musculoskeletal disorders

Susan Stock, Head, Scientific Group on Work-Related Musculoskeletal Disorders, Institut National de Santé Publique du Québec, Montreal, Canada

Proposal for exercise resistance training for industrial workers

Rosimeire Padula, Professor and Researcher, Physical Therapy, Universidade Cidade de São Paulo, Tatuapé, Brazil

Are organizational or psychosocial work interventions effective in preventing work-related musculoskeletal disorders? A systematic review of the literature

Susan Stock, Head, Scientific Group on Work-Related Musculoskeletal Disorders, Institut National de Santé Publique du Québec, Montreal, Canada

Room 203B

Emerging issues in the prevention and management of work-related MSDs – Session 12

Moderator: Mats Hagberg, Professor and Chief Physician, Occupational and Environmental Medicine, University of Gothenburg, Gothenburg, Sweden

Activities of subcontractor first-line supervisors and MSD prevention: collective regulations with employees of the user company

Aude Cuny, PhD Student, Ergonomics, University of Grenoble Alpes, Grenoble, France

Physical job demands are their association with smoking, pain and work limitations in construction workers

Jack Dennerlein, Professor, Department of Physical Therapy, Movement & Rehabilitation Science, Bouvé College of Health Sciences, Northeastern University, Boston, U.S.A.

Musculoskeletal disorder prevention research: learning from research among bricklayers

Henk Van der Molen, Senior Researcher, Coronel Institute of Occupational Health, Academic Medical Center, Amsterdam, The Netherlands

Thursday, June 23
10:30am - 12:00pm

Room 204A

Emerging issues in the prevention and management of work-related MSDs – Session 13

Moderator: Ann-Marie Dale, Research Assistant Professor, School of Medicine, Washington University, St. Louis, U.S.A.

How to prevent work-related MSDs during lean management implementation

Sebastien Bruere, Researcher, OHS Problem Prevention and Rehabilitation, Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST), Montreal, Canada

Work disability prevention and management: an analysis of Colombian labour risk system

Diana Cuervo, Principal Physician, National Disability Rating Board, Bogota, Colombia

OHS leading indicators for musculoskeletal health, safety and disability management

Sheilah Hogg-Johnson, Associate Scientific Director and Senior Scientist, Institute for Work & Health, Toronto, Canada

Managing safety and operations: the effect of joint management system practices on safety and operational outcomes

Lynda Robson, Scientist, Institute for Work & Health, Toronto, Canada

Room 204C

Measuring exposures in a new world of work – Session 13

Moderator: Dongmug Kang, Professor, Department of Preventive and Occupational Medicine, Pusan National University, Yangsan, Korea

Effects of artifacts in a repetitive light assembly task on muscular activity according to age and work rate constraints

Laurent Claudon, Head, Physiology Movement Work Laboratory, Working Life Department, French National Research and Safety Institute (INRS), Vandoeuvre, France

Effect of time constraint on performance speed of a repetitive assembly task according to age

Martine Annie Gilles, Research Fellow, Working Life Department, French National Research and Safety Institute (INRS), Vandoeuvre, France

Does increased automation influence the physical workload of the hands during repetitive manual work?

Francisco Locks Neto, PhD Candidate, Federal University of São Carlos, São Carlos, Brazil

Feasibility study of creating a harmonized approach for MSD hazard assessment and engineering tools

Amin Yazdani, Research Assistant Professor, Kinesiology, University of Waterloo, Waterloo, Ont., Canada

Poster sessions

Monday, June 20

Epidemiology of work-related MSDs

Burden of carpal tunnel syndrome (CTS) in active economic population in Colombia

Francisco Palencia — poster no. 2

Estimated and self-reported workloads and lower extremity symptoms for nurses and nursing aides

Alicia Kurowski — poster no. 3

The Italian network MAREL and musculoskeletal disorders

Stefania Curti — poster no. 4

Perceived muscular tension in healthy subjects: a cross-sectional study

Tina Borg — poster no. 5

Ergonomics factors and low-back pain among office workers in a private university in Colombia: a cross-sectional study

Adriana Angarita Fonseca — poster no. 6

Work-related musculoskeletal disorders of Korean firefighters

Jangwhon Yoon — poster no. 8

Upper extremity musculoskeletal pain among office employees in Costa Rica, Nicaragua and Spain

Adriana Campos-Fumero — poster no. 10

Decrease of work-related low-back pain prevalence in drivers in France

Emilie Chazelle — poster no. 12

Work-related MSDs in physical therapists

Edgar Vieira — poster no. 13

Work-related musculoskeletal disorders among nurses in a tertiary referral hospital

Charuwan Manmee — poster no. 14

Associations between self-reported CTS and co-exposure to neurotoxic chemicals and physical constraints for male agriculture workers in France, 2010

Julie Bodin — poster no. 15

Prevalence and associated factors of suspected carpal tunnel syndrome among hospital personnel

Kanya Janpol — poster no. 16

Capacity for work and occurrence of musculoskeletal symptoms in women

Dernival Bertoncello — poster no. 17

An exaggerated initial pain report: bias in field studies?

Morten Waersted — poster no. 18

Personal support worker (PSW) safety in the community: a prospective cohort study

Emily King — poster no. 19

Work-related risk factors for incidence of neck pain in a large working population

Natacha Fouquet — poster no. 20

Example of using job exposure matrix: carpal tunnel syndrome and computer exposure at work in two large complementary cohorts

Alexis Descatha — poster no. 21

Prevalence and risk factors associated with thumb pain from smartphone use in secondary school students at Klong-Luang, Pathumthani

Santhanee Khruakhorn — poster no. 22

Prevalence and risk factors associated with neck pain from smartphone use in secondary school students at Khlong-Luang, Pathumthani

Siriluck Kanchanomai — poster no. 23

Factors related to upper limb musculoskeletal pain among office workers

Kiook Baek — poster no. 24

Work-related lower limb disorders: lessons learned from a caselist of a public occupational health clinic

Angela Carta — poster no. 25

Risk factors for the hip osteoarthritis (coxarthrosis): results from a systematic review and meta-analysis

Bernd Hartmann — poster no. 28

Tuesday, June 21

Management of work-related MSDs and sustainable employment

Aging among building and construction workers: effects of deteriorating respiratory and neuromuscular functions
Gitte Kær Jeppesen — poster no. 30

Prevention of musculoskeletal disorders among computer workers
Karin Reinhold — poster no. 31

Does dental staffing matter for perceived health and work demands?
Charlotte Wahlin — poster no. 32

Age differences in prediction of occupational disability three months after functional restoration
Fahad Algarni — poster no. 33

Drilling, counter-sinking and riveting: the risks of MSDs in aviation assembly work
Denys Denis — poster no. 34

Using a job exposure matrix on physical exposure as a decision tool for helping in social compensation and retirement benefits: a preliminary study in France
Alexis Descatha — poster no. 35

Measuring exposures in a new world of work

Validation of an ambulatory approach to estimate lumbar back loadings
Alain Delisle — poster no. 38

Occupational health care as a measure to prevent work-related musculoskeletal disorders: trigger criteria for health care and estimation of employees concerned
Patrick Serafin — poster no. 39

Manual handling of loads: types, amount and frequencies of typical load handling in a large-scale industrial company
Patrick Serafin — poster no. 40

Challenges in measuring fatigue: task parameters and their differential influence on measures
Richard Wells — poster no. 41

Fatigue in a light precision micropipetting task: responsiveness of a test battery of measures over an eight-hour period
Richard Wells — poster no. 42

Assessment of physical exposures of housekeepers in a hotel chain
Maryanne Martins de Carvalho — poster no. 43

Measuring exposure: the scoring method for assessment of repetitive tasks
Marina Mihaljinac Bolanca — poster no. 44

Vibration exposures of operators of pallet trucks during internal transport of goods
Frank Rokosch — poster no. 45

Correlation of daily walking steps among three measurement tools: smartphone application, wearable device and pedometer
Ekalak Sitthipornvorakul — poster no. 46

A pilot study of the SLUMP questionnaire for assessing musculoskeletal pain and laptop use in students
Chelsea D'Silva — poster no. 47

Other

Short-term zhan zhuang, bauduanjin and segmental stabilization exercises to improve capacity in adults with low-back pain: a pilot study
Dernival Bertoncello — poster no. 48

Depression and work limitation trajectories in injured workers with musculoskeletal disorders: two-year follow-up study
Selahadin Ibrahim — poster no. 49

Quantitative assessment of shoulders postures: preliminary application of a real-time monitoring system in a grocery store setting
Roberta Bonfiglioli — poster no. 51

Fragility fractures in the workplace: analysis of patient survey data from Ontario, Canada
Dorcas Beaton — poster no. 52

Tuesday, June 21

Assessment of physical workload: muscular activity vs. resultant external force

Laurent Claudon — poster no. 55

Effects of dual monitor workstation on visual and neck-shoulder muscular and proprioceptive outcomes associated with a 90-minute computer task in men and women

Amanda Farias — poster no. 56

Pain intensity and pain thresholds after a dynamic physical load, in persons with chronic neck pain

Anna Grimby-Ekman — poster no. 57

Knee biomechanics in obese female during walking

Chitchanok Nutalaya — poster no. 59

Wednesday, June 22

Biology of work-related MSDs

Relative phase changes during lifting fatigue protocol within a middle-aged population

Wayne Albert — poster no. 61

Effect of repetitive work on intramuscular calcium release and uptake rates: implications from a rat model of work-related muscle disorders

Jenny Hadrevi — poster no. 62

Biomechanical demands of bricklaying concrete masonry blocks using one-handed technique

Wayne Albert — poster no. 63

A case-control study of back muscle fatigue in younger and older adults with and without chronic low-back pain

Edgar Vieira — poster no. 64

Seat pressure distribution characteristic during one-hour sitting in office workers with and without chronic low-back pain

Prawit Janwantanakul — poster no. 66

Emerging issues in the prevention and management of work-related MSDs

Protection of workers

Ayres Carollo — poster no. 68

Self-adjustment of occupational activities: a principle for the prevention of musculoskeletal overload

Matthias Jaeger — poster no. 70

Interprofessional medical collaboration in the care of work-related MSDs

Natacha Fouquet — poster no. 71

Interactions with clients and physiological responses related to musculoskeletal disorders and stress-related outcomes among call centre workers

Richard Wells — poster no. 72

Prevention of work-related musculoskeletal disorders and disability management using holistic risk assessment data about physical exposures at work

Patrick Serafin and André Klussmann — poster no. 73

Wednesday, June 22

Field evaluations of MSD prevention policies, programs and practices

Assessing the impact of a training intervention within the electric utility industry

Madiha Ahmed (please note: poster presenter available to discuss on June 20 only) — poster no. 74

Step by step to job rotation implementation in textile manufacturing industry

Maria Luiza Caires Comper — poster no. 75

Functional profile of preparation program workers for a Brazilian university retirement

Dernival Bertoncello — poster no. 76

Proposal of a prospective multi-site evaluation approach to understand the mechanisms of action underlying complex ergonomic interventions

Valerie Albert — poster no. 77

Multifaceted workplace intervention: managing musculoskeletal disorders in workers of a medium-sized company

Rosimeire Padula — poster no. 78

The influence of adherence to job rotation in control of musculoskeletal complaints

Rosimeire Padula — poster no. 82

Health disparities and globalization

Sociodemographics and health determinants among older adults workers: a population-based study

Renata Dantas — poster no. 85

Pre-conference workshops

PREMUS 2016 programming includes four pre-conference workshops taking place on Sunday, June 19 at the AllStream Centre (the conference venue).

Workshop 1: 8:30am – 12:00pm (breakfast included), Room 202B

Analyzing longitudinal data to incorporate fluctuations in working conditions and health outcomes

In longitudinal studies of work-related health, independent variables such as work conditions are collected at the beginning of the study. They are used to estimate the relative contribution of these variables to the outcomes, such as sickness absence or disability. However, such an approach does not take into account the potential fluctuations over time of both independent variables (such as changes in work conditions) and health outcomes (especially related to episodic health conditions). This workshop will introduce participants to new analytical approaches that can be used when repeated observations over time are possible. The first uses methods for analyzing change that determine whether or not to adjust for baseline values of health outcomes. The second, a life-course approach, uses latent and pathway models to estimate trajectories over time. The third uses multi-state models to provide probabilities of transition between health states and to explain differences among individuals over the course of a disease.

About the facilitators

Alex Burdorf, PhD, is a Professor in the Department of Public Health at the Erasmus University Medical Center in Rotterdam, The Netherlands. A trained occupational epidemiologist, his research interests include the cost-effectiveness of occupational health programs, musculoskeletal disorders (risk factors, prognosis, sickness absence, interventions and modelling), the aging workforce and sustainable employment, and methodological challenges to analyze dynamic patterns of determinants and diseases over time in longitudinal studies. He is a co-founder of the Center for Work-Related Musculoskeletal Disorders in The Netherlands.

Allard van der Beek, PhD, is a Professor of Occupational Epidemiology, Vice-Head of the Department of Public and Occupational Health and Co-Director of the Musculoskeletal Health Research Program at the EMGO+ Institute, VU University Medical Center in Amsterdam, The Netherlands. Within occupational epidemiology, his main research topics include exposure assessments in ergonomics, the (cost-) effectiveness of interventions, etiology of work-related musculoskeletal disorders and work stress, and worksite health promotion. Although most of his intervention studies are randomized controlled trials, he is also interested in the methodological pros and cons of alternative research designs.

Workshop 2: 8:30am – 12:00pm (breakfast included), Room 203A

Using intervention mapping to prevent disability in older workers with, or at risk of developing, musculoskeletal disorders

As the workforce ages, musculoskeletal disorders (MSDs) become a more prominent issue for workplaces. Older workers take longer to recover from MSDs and miss more work days after injury. Several social, psychological and cultural changes that accompany aging may also influence their ability to work. In this workshop, facilitators will highlight studies from a systematic literature review on aging and work, and present key issues in work disability among older workers. Presentations will inform a group discussion on the unique characteristics and needs of older workers with MSDs or at risk of developing MSDs. In the second half of the workshop, participants will apply “intervention mapping” to design a novel workplace intervention for older workers attempting to maintain productive work. This will be the foundation of a protocol for implementing (and, potentially, studying) an intervention in their own workplaces.

About the facilitators

Kim Cullen, PhD, is a Research Coordinator and Knowledge Exchange Associate at the Institute for Work & Health in Toronto, Canada, where her current research topics include understanding risk factors for injury and return to work, older workers and MSDs, and interventions to manage upper extremity musculoskeletal disorders.

Doug Gross, PhD, is a Professor in the Faculty of Rehabilitation Medicine at the University of Alberta in Edmonton, Canada. His research focuses on individuals with musculoskeletal conditions, including work disability prevention, clinical decision support tools, and the effectiveness of clinical and public health interventions. He is also Director of the Rehabilitation Research Centre (RRC) and the Research Director at the Glen Sather Sports Medicine Clinic.

Ivan Steenstra, PhD, is the Research Facilitator at Ryerson University in Toronto, Canada. Previously, he was an Associate Scientist at the Institute for Work & Health, where his research interests focused on the epidemiology of return to work in musculoskeletal pain (with an emphasis on older workers), determining prognosis following low-back pain, and tailoring interventions to achieve a fast and safe return to work.

Workshop 3: 9:00am – 4:30pm (breakfast and lunch included), Room 203B

Understanding and supporting behaviour change to improve the success of workplace interventions

Understanding the drivers behind health-related behaviours has been a challenge for many decades, and a number of explanatory models have been developed. While the majority of behavioural studies fall within the field of health, more behavioural research in the field of occupational health and safety has been undertaken in recent times. Drawing on applied and fundamental research from psychology, this workshop will help participants understand the drivers of behaviour via different models. It will also help participants use this understanding to improve the success of their workplace interventions, including those designed to reduce the risk of musculoskeletal disorders (MSDs).

About the facilitators

Claire Williams, PhD, is a Senior Ergonomics and Human Factors Specialist at Human Applications in Loughborough, U.K., and a Visiting Research Fellow in Human Factors and Behaviour Change at the University of Derby. A chartered ergonomist and human factors specialist (C. ErgHF) with 20 years of experience in occupational health and safety, her current training, consultancy and research focus is on the behavioural aspects of health and safety. She is currently co-editing a book entitled Human Factors and Ergonomics in Practice.

Nigel Heaton is a Chartered Ergonomist and Human Factors Specialist (C. ErgHF) and a Director at Human Applications in Loughborough, U.K. He provides training and consultancy worldwide, advising organizations on designing and implementing risk management systems for business, ergonomics, and health and safety.

Workshop 4: 1:00pm – 4:30pm (lunch included), Room 202A

Achieving additional funding through research commercialization

In today's complex market, commercializing research findings is often encouraged as a way to turn research findings into practical tools for use by the workplace parties and to fund future research. In this workshop, participants will learn a process for research commercialization, as well as the role research commercialization plays in acquiring additional research funding. The workshop will begin by exploring the differences and similarities among knowledge transfer, knowledge mobilization and research commercialization. Participants will then learn about a three-step process of research commercialization: research mobilization, which is about linking research with interested workplaces to get their input, intervention and/or evaluation; market mobilization, which involves partnering with product development professionals to turn research findings into solutions that are applicable and practical in the workplace; and commercialization, which includes identifying the best channel for introducing new products to the marketplace and tapping into business and marketing expertise.

About the facilitators

Glenn Cullen is the Vice-President of Corporate Programs and Product Development at the Public Services Health and Safety Association in Toronto, Canada. A senior executive with 25 years of progressive responsibility and experience in small, medium and large-sized organizations, his career encompasses both for-profit and not-for-profit experience in the public and private sectors. His expertise includes strategic planning, organizational design, finance, IM/IT, marketing, human resources, and business and product development.

Kim Slade is Director of Product development at the Public Services Health and Safety Association in Toronto, Canada. Certified through the Canadian Society for Training Development as a training development practitioner, she has over 15 years of experience as an instructional designer. She was a member of the Canadian Standards Association (CSA) Technical Committee on Health and Safety Training and also the co-principal investigator on an Institute for Work & Health study to develop pictograms to warn of ergonomic hazards in the food services sector.

Social events

PREMUS 2016 social events let you engage with your peers in a relaxing and fun atmosphere while exploring some of what Toronto has to offer. Except for the conference reception, tickets for the events for which you have registered will be included with your conference badge.



Welcome reception at LUMA, TIFF Bell Lightbox

Sunday, June 19, 5:30 to 8:00pm

350 King Street West, Toronto
(on the second floor of the TIFF Bell Lightbox)

Greet old friends and meet new ones at the PREMUS 2016 welcoming reception, taking place on the Sunday evening before the conference starts. Register for the conference on site and then kick off your conference experience with complimentary refreshments and live music at LUMA, a contemporary restaurant where the cuisine reflects the diverse cultural neighbourhoods of Toronto. Music is provided by the Sara Dell Trio, which offers up an upbeat mix of jazz, classical and pop with Sara Dell's sultry voice and elegant keyboarding accompanied by upright bass and drums. Located in the heart of Toronto's Theatre District and housed in the home of the Toronto International Film Festival (TIFF), LUMA is a five to 10-minute walk from the conference hotels.

Conference check-in will be available at the reception.



Conference dinner at Archeo, Distillery District

Wednesday, June 22

6:30pm – restaurant courtyard and bar open

6:45-7:00pm – music starts and hors d'oeuvres served

7:30pm – guests seated for dinner

Distillery District, 31 Trinity Street, Toronto

Enjoy good company and conversation over a scrumptious three-course dinner at Archeo, a restaurant located in Toronto's historic Distillery District. You'll be treated to the offerings of chef de cuisine Andrew Loft, who specializes in contemporary Canadian fare with Italian and French influences. And you'll be surrounded by the restored brick and reclaimed timber of a former whiskey distillery complex, now a cultural destination.

We will start the evening on the private restaurant patio (weather permitting), and then move inside to enjoy dinner in the restaurant, where large-scale photographs of on-site heritage architecture by artist Steven Evans serve as novel room dividers lending the large open-concept room a sense of relaxed intimacy. The Topaz duo, two talented musicians from the Toronto classical music scene, will entertain us on the harp and flute while we dine.

The Distillery District is about 45-60 minutes on foot, 25-30 minutes by streetcar and 10-15 minutes by taxi from the conference hotels. Enjoy the district's galleries, shops and unique surroundings before the dinner. Visit the nearby brewery or one of the smart cafés for music after dinner to finish off your evening.



Brewery tour at Amsterdam BrewHouse on the Lake

Monday, June 20, 5:45-6:15pm and 6:00-6:30pm

245 Queens Quay West, Toronto (on the lakefront)

Tour the stylish Amsterdam BrewHouse and enjoy a tasting from their wide selection of delicious, award-winning beers. From wheats to American pale ales to cask, there is a beer here for everyone. If you choose, stick around for a full pint and dinner with your colleagues while you take in the view of Lake Ontario and the Toronto islands.

The brewery is 2.5 km from the Allstream Centre—that's 10-15 minutes by taxi, 20 minutes by streetcar or 30 minutes on foot.

If you're not signed up for a tour, you can still join your colleagues at the Amsterdam BrewHouse on the Lake for a pint and/or dinner. You are responsible for covering your own costs.



iDAPT tours at the Toronto Rehabilitation Institute

Monday, June 20, 5:40–6:40pm

Tuesday, June 21, 5:40–6:40pm

Thursday, June 23, 2:30–3:30pm

550 University Avenue, Toronto

See the cutting-edge iDAPT research centre credited with revolutionizing the science of rehabilitation. The Toronto Rehabilitation Institute's iDAPT centre—short for Intelligent Design for Adaptation, Participation and Technology—is a unique space where the latest ideas are cultivated and tested to discover how adults with disabilities interact with their environment.

Visitors will see how researchers study the body's response to heat and cold at the Climate Lab, how people react to sudden jolts at the Falls Lab, or how scientists assess diagnostic techniques and therapies at the Movement Evaluation Lab. The highlight of the tour is the Challenging Environment Assessment Lab, the only facility of its kind. This massive underground lab features the world's first hydraulic motion simulator to mimic everyday environmental challenges faced by older people and those with disabling injury or illness.

Located in the heart of the Discovery District, iDapt is 4.5 km from the Allstream Centre, about 15 minutes by taxi.



Toronto islands tour, starting at the Jack Layton Ferry Terminal

Monday, June 20, 6:00–8:30pm.

Ferry departs at 6:15pm to Ward's Island

Jack Layton Ferry Terminal, 9 Queens Quay West, between Yonge and Bay Streets (just west of the Westin Harbour Castle Hotel)

The Toronto islands have been described as the city's hidden gem, and it doesn't take long to see why. Preserved as a car-free community and parkland, the islands offer Torontonians a quick escape from the hustle and bustle of the big city. The short ferry ride to get to the islands also offers a postcard-perfect view of the skyline from the waterfront. Alec Farquhar, one of our colleagues and a long-time resident of Ward's Island, will guide you on a walking tour of the quaint cottage community and a stroll on the beach and boardwalk. If there are enough participants, there may be an opportunity to hear a local indie band.

Meet at the Jack Layton Ferry Terminal at 6:00pm. Guests are required to pay their own way on the ferry and for any costs incurred on the islands. The ferry costs \$7.25 for a two-way fare. Purchase at the terminal or online. Shopping is very limited on the island, so bring water, snacks and, as appropriate sunscreen, sunglasses, a hat, an extra layer, a swimsuit and a towel, a raincoat or umbrella. In the case of steady rain, this trip will be offered on Tuesday June 21.

If you're not part of the organized tour of the islands, you can always plan your own trip. Ferries run every 45 minutes to and from Ward's Island and Hanlan's Point, and every 30 minutes to and from Centre Island.



Toronto Blue Jays baseball game at the Rogers Centre

Tuesday, June 21, 7:00pm

Rogers Centre (aka "the SkyDome"), 1 Blue Jays Way, Toronto

See Toronto's favourite sports team play the Arizona Diamondbacks, one of the rare games of the season when the American League Blue Jays play a team from the National League. This is your chance to watch the 2015 American League East Division Champions start their 2016 run for the World Series.



General information

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Getting to and from Toronto Pearson International Airport

Lester B. Pearson International Airport (YYZ) is 30 km from downtown Toronto.

Toronto Pearson International Airport is Canada's largest and busiest airport, located just on the outskirts of the city.

Allow extra time if you'll be travelling during periods of heavy traffic, which are typically weekdays 6:00 to 9:00am and 4:00 to 6:00pm.

A number of services, most accessible from both Terminal 1 and Terminal 3 at Pearson, are available for travel between the airport and downtown Toronto.

Airport taxi and limousines

Time: 30-60 minutes, depending on traffic

Cost: \$55 + tip per carload (and, typically, a \$12 charge is added for each passenger dropped off en route)

Follow signs to the taxi queue where licensed drivers will pick you up. Credit cards are generally accepted; debit cards less so. It's always best to check with the driver in advance.

For more information on taxis and limos at the airport, go to: www.torontopearson.com/en/toandfrom/taxilimo

Getting to and from Toronto Pearson International Airport

Rail link via Union Pearson Express

Time: 25 minutes

Cost: \$12.00 per person, \$9.00 per person using the PREMUS group rate

www.upexpress.com

The Union Pearson Express (UP Express) train connects Toronto Pearson International Airport (Terminal 1) with Union Station in downtown Toronto in 25 minutes. Union Station offers access to further rail and public transit services, including the TTC's Yonge-University line (Line 1). Trains have WiFi service and operate on a 15-minute schedule. This direct train service also includes two brief stops at the Bloor and Weston GO Stations.

A group rate of \$9.00 per person for travel between Pearson and Union Station is available for PREMUS 2016 delegates. UP Express tickets under this group rate can be purchased (by credit card only) from a UP Express guest services representative at a UP Express Station at time of travel. Confirmation of conference registration (printed or digital) must be presented at time of purchase.

Public transit via Toronto Transit Commission

Time: 45-90 minutes, depending on traffic

Cost: \$3.25 per person

www.ttc.ca/Riding_the_TTC/Airport_service.jsp

There is no direct subway service to and from Pearson Airport; however, TTC buses connect the airport with the subway system via the Kipling subway station. The TTC system is safe and provides frequent service between 5:30am (8:30am on Sundays) and 1:00am. Overnight, the airport is served by less-frequent TTC night buses.

The 192 Airport Rocket is a wheelchair-accessible bus that provides express, all-day service between the Kipling subway station and Pearson Airport (Terminal 1 ground level and Terminal 3 arrivals level). Kipling station is on the Bloor-Danforth line (Line 2) of the TTC subway system. The service operates from approximately 5:30am to 2:00am Monday through Saturday, and from approximately 8:15am to 2:15am on Sunday.

Please note that, except on the 192 Airport Rocket bus, there are no luggage racks on subways or buses.

You can purchase single fare tickets at Toronto Pearson International Airport. There are two TTC ticket vending machines in Terminal 1, located at the Public Transit area of the Ground Transportation Level, just inside from where the TTC buses stop (curbside, at column "R"). In Terminal 3, you can purchase single fare tickets at the Currency Exchange counter located on the arrivals level.

To reach most downtown hotels from Kipling station, you need to transfer to a southbound subway train on the Yonge-University line (Line 1) at either St. George or Yonge stations. Elevators and escalators are available at both stations. Make sure you know the closest subway station to your hotel in advance.

Getting to and from Billy Bishop Toronto City Airport

Billy Bishop Toronto City Airport (YTZ) is 2.5 kilometres from downtown Toronto.

Canada's ninth busiest airport, it is located on an island in Lake Ontario, just off the city's mainland, at the foot of Bathurst St. Transportation time between the airport and downtown Toronto is less than 20 minutes.

Pedestrian tunnel

A pedestrian tunnel connects the island airport to Toronto's mainland. The tunnel is 260 metres long, running from the airport's mainland terminal at the foot of Bathurst St. to its main terminal on the island. Thanks to four moving walkways and one of the longest escalator systems in Canada, the trip takes under six minutes to complete. Access to the pedestrian tunnel is free.

Ferry

A short ferry ride (121 metres!) takes passengers between the island airport and the mainland ferry terminal at the foot of Bathurst St., where taxis and public transit are available. The 90-second ferry ride runs every 15 minutes. (Most people use the pedestrian tunnel.)

Cost: Free for pedestrians and \$11 for vehicles (round trip).

The ferry schedule is available at:
www.portstoronto.com/Airport/Getting-To/Ferry-Schedule.aspx

Public transit via Toronto Transit Commission (TTC)

From the mainland ferry terminal at the foot of Bathurst St., passengers can travel north on the 511 Bathurst streetcar (and transfer going east or west, as necessary) or travel east on the 509 Harbourfront streetcar to get to Union Station.

Taxi

Time: 5-12 minutes

Cost: Under \$15

Taxis are located at the taxi stand at the foot of Bathurst St., just outside the mainland ferry terminal.

Shuttle

Time: 15 minutes

Cost: Free

Porter Airlines runs an express shuttle bus between Billy Bishop airport and downtown Toronto. It runs approximately every 15 minutes, and is free to anyone going to the airport, not just passengers. The shuttle runs between the mainland ferry terminal at the foot of Bathurst St. and across the street from Union Station (the stop is located on the south side of Front Street, just past the southwest corner of York and Front Streets, near Starbucks).

Shuttle information and a schedule are available at:
www.portstoronto.com/Airport/Getting-To/Airport-Shuttle.aspx

Getting to the conference venue

The Allstream Centre is located at the eastern end of the Exhibition Grounds on the shores of Lake Ontario, just inside the Princes' Gates on the south side.

The Allstream Centre is just minutes away from Toronto's bustling downtown core. Eclectic neighbourhoods such as Liberty Village, Queen Street West, Parkdale, Little Italy, Little Portugal, Ossington Avenue, Kensington Market and Chinatown are nearby.

Our advice is to take taxis to and from the Allstream Centre as much as possible due to construction in the area that makes public transit and walking a bit more problematic. That said, you can get to the Allstream Centre by car, public transit or bike and on foot.

As a point of reference, no matter what your mode of transportation, remember that the CN Tower and Lake Ontario are to the south.

Getting to the conference venue by taxi

To get to the Allstream Centre, you can catch a taxi at your hotel, flag one down on the street or call to be picked up.

Below are the numbers and websites for a few common taxi companies:

Beck: (416) 751-5555 | www.becktaxi.com

Diamond: (416) 366-6868 | www.diamondtaxi.ca

Co-op: (416) 504-2667 | www.co-opcabs.com

Crown Taxi: (416) 240-0000 | www.co-opcabs.com

City Taxi: (416) 740-2222 | www.citytaxitoronto.com

At the conference venue, a taxi stand is located on Princes' Boulevard, across the road from the Allstream Centre.

Most taxicab companies now have apps to help you order and track taxis. You can learn more by visiting their respective websites above. You can also book cabs online from these websites.

Getting to the conference venue

By car

From the east

Take the Gardiner Expressway west to Spadina/Lake Shore Boulevard cutoff and follow the signs for Lakeshore Boulevard.

Continue west on Lake Shore Boulevard to the Princes' Gates (just west of Strachan Avenue). The Allstream Centre is on your left.

From the west

Take the Gardiner Expressway east to Lake Shore Boulevard. Stay on Lakeshore Boulevard travelling east.

Turn left off of Lake Shore Boulevard to Exhibition Place at one of two exits, both with traffic lights: Ontario Drive or Newfoundland Drive.

From Ontario Drive, turn right onto Princes' Boulevard. The Allstream Centre is just a bit further on your right, past the Hotel X under construction.

From Newfoundland Drive, the Allstream Centre is on your right at Princes' Boulevard.

From Pearson International Airport

Exit the airport onto Highway 427 South to Gardiner Expressway East. Take the Gardiner Expressway East to Lake Shore Boulevard. Stay on Lakeshore Boulevard travelling east.

Turn left off of Lake Shore Boulevard to Exhibition Place at one of two exits, both with traffic lights: Ontario Drive or Newfoundland Drive.

From Ontario Drive, turn right onto Princes' Boulevard. The Allstream Centre is on your right, past the Hotel X under construction.

From Newfoundland Drive, the Allstream Centre is on your right at Princes' Boulevard.

From Billy Bishop City Centre Airport

Drive north on Bathurst Street to Lakeshore Boulevard, and turn left onto Lake Shore Boulevard travelling west.

Drive through the Princes' Gates (just west of Strachan Avenue). The Allstream Centre is on your left.

You can also walk to the Allstream Centre from the airport. It takes about 20 minutes. See the information below on arriving at the conference venue on foot.

Parking

A lot of parking is available near the Allstream Centre. Parking Lots 1, 2 and 3 offer the closest above-ground parking, and all are just slightly west of the Allstream Centre. An underground lot is located in the Enercare Centre opposite from the Allstream Centre, and the two are connected via an underground link.

Parking rates are as follows:

Surface and underground lots before 6:00pm—\$14.00

Surface and underground lots after 6:00pm—\$11.00

Note: Underground rates increase \$3 on peak usage dates.

Getting to the conference venue

By public transit (Toronto Transit Commission)



You can reach the Allstream Centre (on the Exhibition Grounds) using the city's public transit service. To be on the safe side, always get a transfer when you enter the TTC system. If you are boarding a streetcar or bus, ask the driver for a transfer. If you are entering the subway system, get a transfer from the bright red transfer dispensary that will be obvious almost immediately upon entering through the subway station turnstiles. A one-way adult cash fare on the TTC is \$3.25.

A number of TTC options are available for getting to the Allstream Centre.

509 Harbourfront streetcar

Take the Yonge-University subway (Line 1 or yellow line) southbound to Union Station. When you get out at Union, follow the exit signs to "Streetcars" and get in line for the 509 Exhibition streetcar. The streetcar will travel underground for a short while and then run west along Queens Quay.

Due to construction through the summer of 2016, you need to exit at the last stop on the 509 streetcar, called Bastion (at the corner of Fleet Street and Bastion Street). You can then board the 509/511 Exhibition Place bus shuttle from the bus stop that is just across the street from where the streetcar drops you off. The shuttle runs about every five minutes. It will take you into the Exhibition Grounds, where Allstream Centre is almost immediately on your left across from the Enercare building. Instead of taking the shuttle, you can also walk the remainder of the way (500 metres) from this last streetcar stop. Walk west along Fleet Street (the same direction the streetcar was going), cross the lights at Fort York and Strachan, and walk left on Strachan. You will see the Princes' Gates on your right. Walk through along Princes' Boulevard. The Allstream Centre (the old Automotive Building) is immediately on your left.

511 Bathurst streetcar

Take the Bloor-Danforth subway (Line 2 or green line) to Bathurst Station, and board the 511 Bathurst streetcar south to Exhibition Place. You can also board the 511 Bathurst streetcar at any of the major east-west intersections: for example, Dundas St., Queen St. and King St.

Again, due to construction through the summer of 2016, you need to exit on the last stop of the 511 streetcar, at Fleet Street (at the corner of Fleet Street and Bastion Street). See the information at left for the 509 Harbourfront streetcar about then taking the shuttle or walking to the Allstream Centre.

29 Dufferin bus

Take the Bloor-Danforth subway (Line 2 or green line) to Dufferin Station, board the 29A, 29B or 29C Dufferin bus south to Exhibition Place. You can also catch the Dufferin bus from any of the major east-west intersections, including College St., Dundas St., Queen St. and King St. and smaller stops in between.

The Dufferin 29A and 29B buses only go as far as the Dufferin Gates, where you will have to walk the rest of the way (east along Saskatchewan Road to Princes' Boulevard to the Allstream Centre). The Dufferin 29C bus goes through the Exhibition Grounds to the Allstream Centre on a limited service (before 8:30am and from 2:00 to 5:30pm), and you get off at Princes' Gates.

A number of free apps are available for iOS, Android and BB 10 devices that will accurately tell you when the next TTC streetcar or bus is going to depart:

RocketMan: www.rocketmanapp.com

Transit App: www.transitapp.com

Getting to the conference venue



By regional public transit (GO transit)

You can catch a GO train at Union Station, from the York Concourse. On the screens in the York Concourse, look for the time and boarding platform for the next Lakeshore West train. Take this train and get off at the first stop, the Exhibition GO stop, located at the north side of Exhibition Place.

From the GO stop (850 metres away from Allstream Centre), walk south on Nova Scotia Avenue then left along Nunavut Road that runs east and then south around the parking lot between the BMO Field and the Enercare Centre. Turn left (east) onto Princes' Boulevard. The Enercare Centre is on your left and the Hotel X (under construction) is on your right. The Allstream Centre is just past Hotel X on your right.

By bicycle

Allstream Centre provides limited bicycle parking located at the north-east corner of the building. Other bike racks near the Allstream Centre are found at the northwest, northeast, and south sides of Enercare Centre.

On foot

The Allstream Centre is about a 45-minute walk from the downtown core. For example, it's a 40-minute walk from the InterContinental Hotel and the Westin Harbour Castle (about three to three-and-a-half kilometres away), and a 50-minute walk from the DoubleTree Hilton Hotel (4.0 kilometres away).

If you're starting out north of the Gardiner Expressway, walk west along a main street such as Front, King, Queen or Dundas Street. Turn left onto Bathurst Street. Walk south until you reach Fort York Boulevard. Turn right onto Fort York Boulevard, cross under the Gardiner Expressway, and then turn right onto Fleet Street. Walk west along Fleet Street, cross the lights at Strachan, and walk left on Strachan. You will see the Princes' Gates on your right. Walk through along Princes' Boulevard. The Allstream Centre (the old Automotive Building) is immediately on your left.

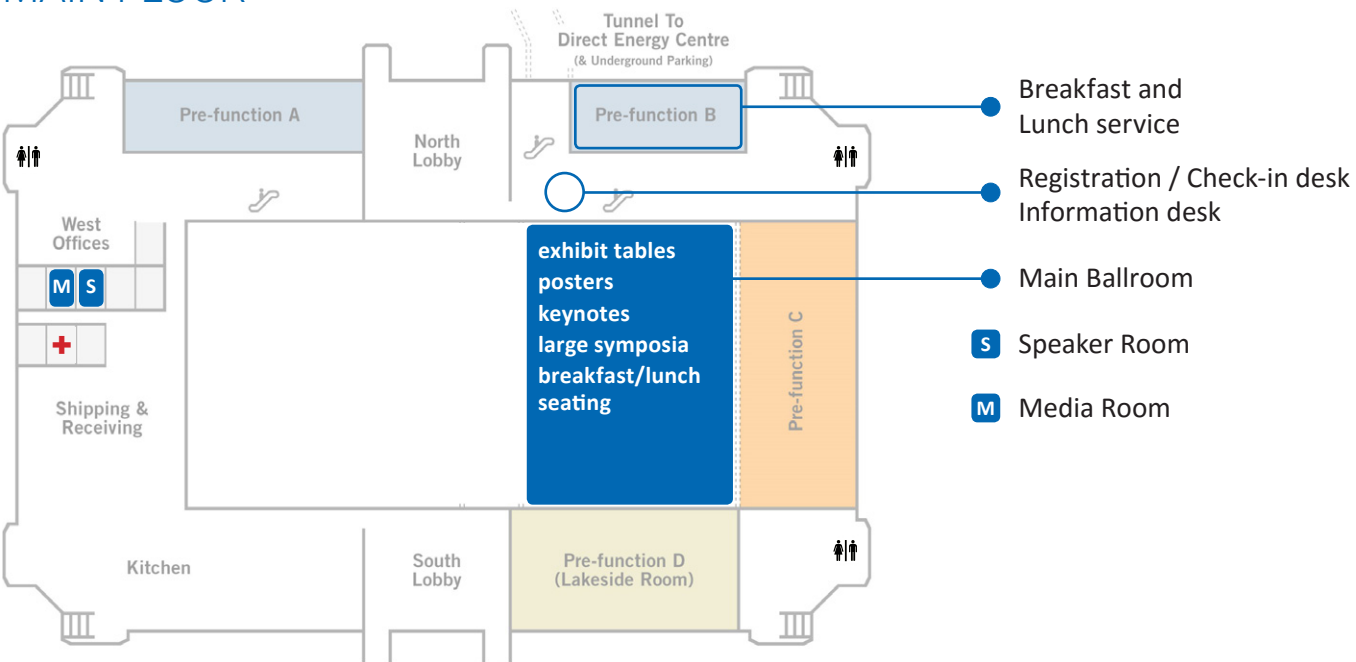
An alternate route is to walk south of the Gardiner Expressway, west along Queens Quay West. Walk south along a major north-south route to Queens Quay West (for example, Yonge or York Streets or Spadina Avenue). Turn right onto Queens Quay West and proceed for almost two kilometres. Turn right onto Dan Leckie Way and then immediately left onto Lake Shore Boulevard West. Walk along the Lake Shore Boulevard for about 600 metres and then proceed straight onto Princes' Boulevard and through Princes' Gates. The Allstream Centre is on your left.

Another route is to walk west along King Street to Liberty Village. Turn left onto Atlantic Avenue. Walk south to the end of Atlantic Avenue, cross over where indicated (the area is under construction) and go through the underpass at the GO Exhibition station. After you exit, walk south on Nova Scotia Avenue then left along Nunavut Road that runs east and then south around the parking lot between the BMO Field and the Enercare Centre. Turn left (east) onto Princes' Boulevard. The Enercare Centre is on your left and the Hotel X (under construction) is on your right. The Allstream Centre is just past Hotel X on your right.

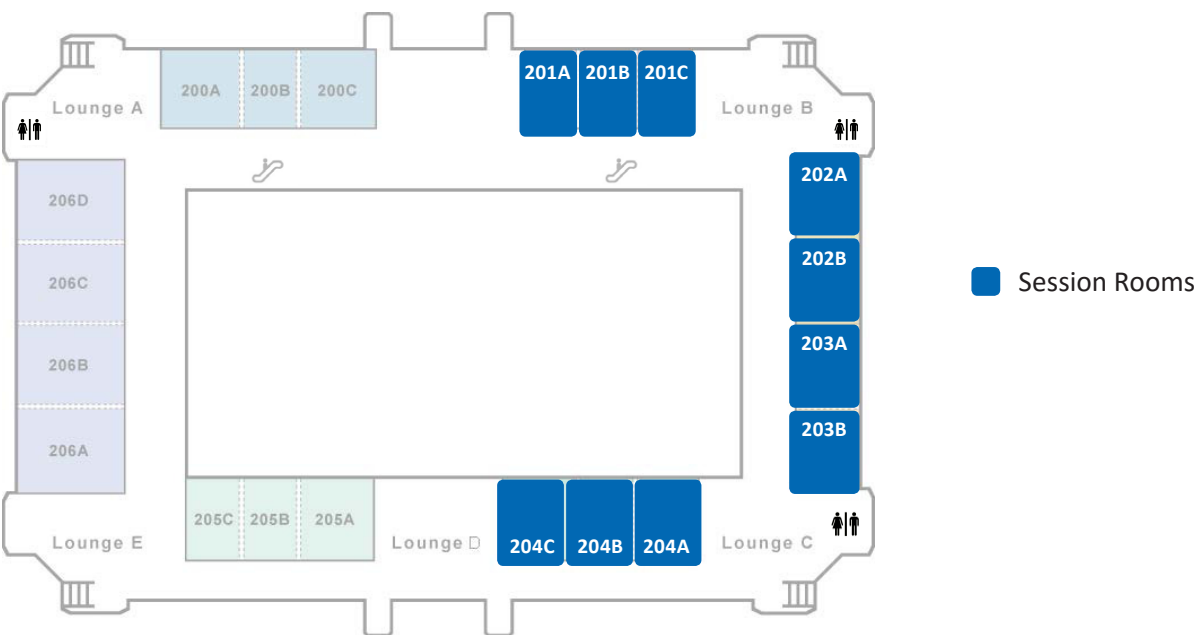
Venue floor plan

The Allstream Centre, once known as the Automotive Building, is billed as Canada’s greenest conference centre—the first in the country with LEED Silver Certification. Its meeting spaces feature many leading-edge technologies and practices.

MAIN FLOOR



UPPER FLOOR



Conference administrative information

Conference program

In keeping with green conference principles, print copies of the conference program are not being offered at PREMUS 2016. Therefore, your best option is to view this PDF version online: www.premus2016.iwh.on.ca. If you wish to print out the program PDF, please do so before arriving at the conference venue, as there are no printing services available at the Allstream Centre. You will receive an at-a-glance conference schedule with your conference badge upon checking in at the registration desk.

Scientific Committee lunch

Members of the PREMUS 2016 International Scientific Committee (see page 9 in this program) who are attending the conference are invited to join the committee's chair, Ben Amick of the Institute for Work & Health, for a lunch on Monday, June 20. The buffet lunch is being served in Room 204B of the Allstream Centre.

ICOH member lunch

Members of the International Commission on Occupational Health (ICOH) are invited to dine with fellow members at lunch on Tuesday, June 21. The buffet lunch is being served in Room 204B of the Allstream Centre.

Presentation slides

If you wish to obtain a copy of a speaker's slide presentation, please make arrangements directly with the presenter to do so. Presentation abstracts will be published in the conference proceedings, to be available online in the weeks after PREMUS 2016. However, except for those of the keynote speakers, slide presentations will not be published either in the proceedings or on the website.

Registration check-in

Please check in at the registration desk when you arrive at the Allstream Centre. The registration desk is staffed during the following hours:

Monday, June 20 – 7:30am to 5:00pm
Tuesday, June 21 – 7:30am to 5:00pm
Wednesday, June 22 – 7:30am to 5:00pm
Thursday, June 23 – 7:30 to 10:30am

Alternately, you can check in at the registration desk at the welcoming reception on Sunday, June 19, at LUMA, TIFF Bell Lightbox, 350 King St. West. This registration desk is staffed from 5:30pm to 8:00pm.

Delegates who wish to register and pay onsite may do so using the conference online payment system (which accepts VISA and Mastercard only). We are unable to offer an alternative payment option onsite.

Delegate conference badges

Conference badges, provided to you when you check in at the registration desk at the reception dinner or at the Allstream Centre, are required for admission to all sessions and meals. Please wear your badge at all times. Tickets for the social events for which you have also registered will be included in your conference badge, and must be presented to gain entry to each respective event. Your conference badge will also include an at-a-glance conference schedule.

Onsite help

If you need assistance at the conference, please don't hesitate to ask one of the members of the PREMUS Hosting Committee or the IWH staff volunteers. You will be able to spot them by their identifying badges and ribbons.

Meals and snacks

Breakfast, a morning snack, lunch and an afternoon snack are available each full day of the conference in Ballroom B during the following times:

Breakfast buffet – 7:30 to 8:30am

Morning snacks – 10:00 to 10:30am

Lunch buffet – 12:00 to 1:00pm

Afternoon snack – 3:00pm to 3:30pm

Water stations (with drinking glasses) are available throughout the conference venue. If desired, please bring your own bottle to refill as plastic water bottles are not offered.

Other food outlets and coffee shops are not readily available near the Allstream Centre. The nearest are located off-site, in Liberty Village, a 15-minute walk away.

Speakers' room

Speakers may prepare for or make last-minute changes to their upcoming presentations in Room 115. This room is equipped with a laptop and a printer. Speakers may find it helpful to use their own laptops to avoid waiting in line.

Media room

Members of the media are invited to check in at, and use, the media room, Room 117. The media room will have daily press releases available, and will also provide a working room for members of the media. The media contact person at PREMUS 2016 is Uyen Vu, a member of the communications team at the Institute for Work & Health. If she is not available in the media room, you can call or text her at (613) 979-7742. Alternately, you can alert someone at the registration desk that you are trying to get in touch with her, and that person will contact Uyen on your behalf.

Internet access

You can access the Internet via a free WiFi service at the Allstream Centre. The WiFi network name is: Allstream. No password is required.

Social media

Delegates are encouraged to post updates and share pictures of the conference using the #PREMUS2016 hashtag.

Charging phones, tablets and laptops

Please feel free to use the outlets that are readily available throughout the conference venue to charge your mobile devices. Power bars will also be available at the registration for charging devices. Please note that you are responsible for the security of your devices at all times, including when they are charging.

Lost and found

Please check with the registration desk regarding any lost or found items. Check also with Allstream Centre Security, as items may be turned in there.

Message board

A message board is located directly at the entrance next to the registration desk. You may use this board to post messages for other attendees.

Ticket exchange

If you are unable to attend any of the social events for which you have signed up (including paid events such as the conference dinner and the Blue Jays baseball game), you may use the message board to advertise the availability of your tickets. The exchange and, if applicable, payment for the tickets will have to be negotiated privately with the person to whom you are transferring them. We are unable to offer refunds.

Accessibility

The Allstream Centre is fully wheelchair accessible. Wheelchair accessible parking spaces are located near the entrances to parking lots and/or close to the pedestrian access points to buildings and event space. There are 88 wheelchair accessible parking spaces throughout the Exhibition Place.

Fire exits and emergency information

There are multiple emergency exits located throughout the Allstream Centre. Just follow the exit signs. If a first aid kit, an automated external defibrillator (AED) or an ambulance is required, please request assistance at the Allstream Centre Security desk near the front door.

Automated Bank Machine

An Automated Bank Machine (ABM) is located on the ground floor of the Allstream Centre, to the right side of the north lobby.

Certificate of attendance

If you require a certificate of attendance for PREMUS 2016, please e-mail premus2016@iwh.on.ca with your request. Having confirmed that you did, indeed, attend the conference, we will send the certificate out as soon as possible after the conference.

Evaluation forms

An online evaluation form will be sent out after the conference. We thank you in advance for taking the time to give your feedback and suggestions for future hosts.

Information for presenters

Information for oral presenters

Checking in at the conference

All speakers must check in and pick up their badges (and, if applicable, social event tickets) before giving their presentation. A check-in/registration desk will be located at the welcoming reception (at LUMA in the TIFF Bell Lightbox) on Sunday night. A check-in/registration desk at the Allstream Centre conference site, in the area in front of Ballroom B, will be open 7:30am to 5:00pm Monday through Wednesday and 7:30am to 10:30am Thursday. Please make sure you have checked in for the conference at least 30 minutes before your presentation time.

Speaker bios

If you have not already sent in your biographical information to the conference organizers, please be prepared to provide the information to the symposium chair or session moderator before the session in which you are presenting begins. This information—about your professional roles, affiliations and research interests—is needed so the chair or moderator can accurately and adequately introduce you.

Speakers' room

If you need to finish or make last-minute changes to your presentation, please feel free to use Room 115 at the Allstream Centre, which has been set aside for this purpose. The room is equipped with a laptop and a printer. You may find it helpful to use your own laptop to avoid waiting in line to use the laptop available.

Speakers' guidelines and room set up

Please arrive at your presentation room (either a session room or Ballroom B) 20 minutes prior to your presentation. When you get to your presentation room, please identify yourself to the symposium chair or session moderator. This person will load your slides onto the laptop, discuss the biographical information to be used for your introduction, and pass on any other information relevant to the session. Institute for Work & Health (IWH) volunteers will also be nearby to help with these tasks.

Session rooms are set up theatre style (except in the Ballroom B, where it is banquet style). All rooms will be equipped with an LCD multimedia projector, house sound, laptop computer, screen and microphone.

Please bring your presentation on a USB key, using PowerPoint or PDF formatted slides only. If you have additional audiovisual requirements, please contact premus2016@iwh.on.ca. We encourage all speakers to include a contact information slide in their presentation so that delegates have the opportunity to follow up with questions or discussion regarding your presentation at a later date. We will not be posting slide presentations on the PREMUS website after the conference, although we will be posting abstracts in the conference proceedings. Therefore, attendees who want a copy of your slide presentation will need to request it from you directly.

You will have the following amount of time to give your presentation:

- Sessions with three or four speakers: 12 minutes
- Sessions with five speakers: 10 minutes

Information for poster presenters

Checking in at the conference

Poster presenters must check in and pick up their badges (and, if applicable, social event tickets) before their assigned poster session. A check-in/registration desk at the Allstream Centre conference site, in the area in front of Ballroom B, will be open 7:30am to 5:00pm Monday through Wednesday and 7:30am to 10:30am Thursday. A check-in/registration desk will be located at the welcoming reception (at LUMA in the TIFF Bell Lightbox) on Sunday night.

Poster display area

Poster display boards will be available throughout all four days of the conference at the back of the main conference ballroom (Ballroom B). You are encouraged to display your poster for the full duration of the conference, no matter what your assigned poster session.

Poster sessions

There will be three poster sessions during the conference. Poster presenters have already been assigned a poster number and session, during which time they expected to be available (i.e. standing by their poster) to discuss the poster with delegates. If you have forgotten your poster session, please go to the registration desk to find the information you need or check the poster listings on page 78 of this guide.

Poster Session 1 — Monday June 20, 2016

Poster Session 2 — Tuesday June 21, 2016

Poster Session 3 — Wednesday June 22, 2016

Size limitations

Your poster size should be 33 inches x 45 inches (width x height). We will provide Velcro tape for mounting your poster.

Posters are displayed in portrait format (not landscape).

Posters will be placed on both sides of each poster board. Please do not exceed these dimensions. Posters that do not fall within the specified size limitations will only be posted based on availability of space.

You may bring A4/legal or letter copies of your poster with you to share with interested delegates.

Poster printing

Please bring the poster with you (as hard copy) to the conference. Note that onsite printing, including poster printing, is not available at the conference venue.

Hanging your poster

Please post your poster on the poster boards in Ballroom B at least before 8:30am on the day of your assigned session. However, we encourage you to display your poster for the full length of the conference, if possible, or as much of the conference as possible. Therefore, you are invited to hang your poster as soon as possible during one of these times:

Sunday, June 19 — 8:00am - 4:00pm

Monday June 20 — 7:00 - 8:30am

Tuesday, June 21 — 7:00 - 8:30am

Wednesday, June 22 — 7:00 - 8:30am

Please note that you are allowed to hang your poster on the Sunday before the conference begins without having checked in at the registration desk.

All poster stands are arranged by conference theme. Please hang your poster on the poster stand that corresponds to the poster number already sent to you. If you have forgotten your poster number, please go to the registration desk to find the information you need or check the poster listing on page 78 of this guide.

Taking your poster down

Please remember to take down your poster when the conference ends on Thursday, June 23. If are leaving earlier than Thursday, you can remove your poster any day between 5:00 and 5:30pm after your assigned session has ended.

If you don't take down your poster, we will remove it at the end of the conference and discard.

Toronto general information

Accessibility

Accessibility is a prime objective of business establishments, sporting events, entertainment venues and public transportation in the Toronto region. For details about the accessibility of specific attractions (e.g. Art Gallery of Ontario), please check each organization's website for information. A website called [AccessTO](#) includes reviews of the physical environments in Toronto, including restaurants, bars and concert venues.

Currency

Toronto's currency is the Canadian dollar (and all dollar values quoted in this program are in Canadian dollars). For denominations under five dollars, coins are used. The \$1 coin is referred to as the loonie and the \$2 coin as the toonie. U.S. dollars are accepted in many Toronto establishments, although you'll receive change in Canadian funds and exchange rates will differ from merchant to merchant.

You'll find cash machines/ATMs all over the city and in most banks, hotels and shopping centres. Credit cards are accepted at all major retailers. Currency exchange is available at kiosks in the city and at the airport.

Drinking water

Tap water in Toronto is treated and safe to drink.

Driving and parking

Toronto's streets follow a basic grid pattern and are easy to navigate. Speed limit signs are posted on each street. The city's weekday "rush hour" is more than an hour long – count on heavy traffic from 7:00am to 9:00am and again from 4:00pm to 6:00pm. Plenty of Toronto's major streets have bicycle lanes nearest the curb and you need to be aware of them while driving to ensure their and your safety.

Parking on most downtown streets is limited to specific times of day, and often requires you to purchase and display a ticket from one of the parking machines located along the street. Be sure to check and obey the signs posted along the street to make sure your vehicle doesn't get ticketed or, worse, towed away. There are also a variety of public parking lots throughout the city. City-owned lots are indicated by the 'Green P' logo – a large 'P' in a green circle. Plan in advance using [Green P's parking locator](#) to find the nearest lot. As well, parking is available at most hotels.

Electricity

The standard voltage in Canada is 120 V, and the standard frequency is 60 Hz. The power sockets that are used are of type A / B. You may need a power plug adapter to use your devices.

Emergency services and hospitals

Within Canada, the emergency number to dial for police, ambulance services and the fire department is 911.

The following are hospitals located downtown or near the Allstream Centre that have emergency and trauma care.

Toronto General Hospital
(416) 340-4800
200 Elizabeth Street
uhn.ca

Mount Sinai Hospital
(416) 596-4200
600 University Avenue
mountsinai.on.ca

St. Michael's Hospital
(416) 360-4000
30 Bond Street
stmichaelshospital.com

St. Joseph's Health Centre
(416) 530-6000
30 The Queensway
stjosephs.ca

The Toronto Hospital - Western Division
(416) 603-5757
399 Bathurst Street
uhn.ca

Languages

There are two official Canadian languages – English and French. English is the language of the PREMUS 2016 conference and the language most often spoken in Toronto. The other top five languages spoken in Toronto are Chinese, Italian, Tamil, Portuguese and Spanish.

Pharmacies

Many pharmacies are available 24 hours a day. Two pharmacy chains have stores throughout the city: [Rexall](#) and [Shoppers' Drug Mart](#).

Public transit

The Toronto Transit Commission, or TTC, is responsible for providing public transit in the City of Toronto. The TTC serves this area with a grid network of: four subway lines (two serving the downtown), 11 streetcar routes and more than 140 bus routes.

Line 1 Yonge-University Line is a U-shaped subway route running generally in a south then north direction. Union Station, found at the bottom of this U shape, is a major point of connection to the VIA train, the regional GO Transit service, and the Union Pearson (UP) Express connecting downtown Toronto to the Toronto Pearson International Airport. Line 1 intersects with Line 2 at Bloor-Yonge, St. George and Spadina Stations.

Line 2 Bloor-Danforth run generally east-west along Bloor Street West, Bloor Street East and Danforth

Avenue. Line 2 connects with Line 1 at Bloor-Yonge, St. George and Spadina Stations, and it connects with Line 3 at Kennedy Station in the east.

Accessibility

Of the TTC's 69 subway stations, 34 are equipped with elevators. In the downtown core, these include: St. George, Queen's Park, Osgoode, St. Andrew, Union, Queen, Dundas and Bloor-Yonge along Line 1, and St. George, Bloor-Yonge, Bathurst and Spadina along Line 2.

Fares

\$3.25 single cash fares

\$2.90 per token when a minimum of three tokens are purchased.

\$12 day pass for unlimited travel from 5:30am to 5:30am the next day

You can purchase tickets, tokens and passes at collector booths, which are located at every subway station. Tokens are sold in various quantities at a minimum of three tokens for \$8.70. Subway station collector booths will accept [debit and credit cards](#) (Visa, Mastercard, or American Express) for purchases of \$10.00 or more. Token vending machines are available in many stations and dispense tokens in quantities of one, three and seven. These machines accept cash only.

For more information, visit:

- [Toronto Transit Commission website](#)
- [TTC Trip Planner](#)

Smoking and alcohol

Smoking is banned in indoor public spaces and workplaces, including restaurants, bars and casinos. Smoking is also prohibited in some outdoor spaces, including playgrounds, publicly owned sport fields, all bar and restaurant patios whether covered or not, and within nine metres of an entrance or exit of any building that is used by the public.

Alcohol consumption is permitted only in private residences and licensed premises.

Taxes

The Harmonized Sales Tax (HST) is a 13% tax that is applied to most purchases of taxable supplies of goods and services in the Province of Ontario. The HST consists of a 5% federal portion and an 8% retail sales tax portion.

Taxis

You can easily catch a taxi from taxi stands located at airports, hotels and outside the Allstream Centre. You can also hail one on the street or call to be picked up. Fares are standard, metered and non-negotiable. The driver should start the meter at the beginning of your ride and stop it when you reach your destination. Refuse to ride in a taxi without an operational meter. If your service is acceptable, a 15% tip (+/- 5%) is customary.

The following are some of the larger taxi services operating in Toronto:

Beck: (416) 751-5555
becktaxi.com

Diamond: (416) 366-6868
diamondtaxi.ca

Co-op: (416) 504-2667
co-opcabs.com

Crown Taxi: (416) 240-0000
crowntaxi.com

City Taxi: (416) 740-2222
citytaxitoronto.com

Most taxicab companies now have apps to help you order and track taxis. You can learn more by visiting their respective websites above. You can also book cabs online from these websites.

Tipping

If you're happy with the service you receive, a 15% tip on the pre-tax bill is a standard expression of appreciation when dining out in the city. Note that some restaurants automatically add this gratuity when serving large groups, so be sure to check your bill.

Tips are also expected for services such as haircuts, shoe shines and taxi rides; 15% (+/- 5%) is standard in these situations as well.

Weather

The month of June is characterized by rising daily high temperatures, with daily highs averaging a warm 24°C (75°F) and daily lows averaging 13°C (55°C), with only about a 10% chance of the low falling below 10°C. June is one of the sunniest months in Toronto, with only about 10 days in the month typically experiencing some rainfall, with a total expected rainfall of 69mm (2.7 inches) in the month. Maximum UV levels tends to be high (8UV index) at midday when the skies are clear. Sunrise is around 5:40am and sunset around 9:00pm.

Toronto tourism



Toronto is Canada's biggest and most multicultural city, a bustling metropolis where over 140 languages are spoken.

It offers high adventure (like the Edgewalk around the roof of the main observation deck of CN Tower), "drool-worthy" restaurants (to quote The Lonely Planet), world-class sports (like Blue Jays baseball, Argonauts football, Toronto FC soccer and Raptors basketball), a vibrant nightlife (from ballet and musicals to local music in grassroots bars), world-class shopping (whether it's the Eaton Centre or Bloor St.), and eclectic neighbourhoods (from trendy Little Italy and Ossington Avenue, to Kensington Market and Chinatown).

All delegates will receive a copy of the Official TOronto Visitor Guide 2016 when they pick up their conference badges. The guide includes information on 2016 events, Toronto's neighbourhoods, attractions, restaurants, shopping, tours and transportation, as well as a fold-out map of Toronto's downtown core.

Other sources of information to help plan your time in Toronto and the surrounding area include the following

[Tourism Toronto](#)

[Ontario Tourism](#)

[Toronto.com](#)

[NOW Magazine](#)

[BlogTO](#)

[Toronto Life magazine](#)



We look forward to seeing you
in Bologna at PREMUS 2019!

Building the Province you live and work in.



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Institute of Musculoskeletal
Health and Arthritis
Institut de l'appareil
locomoteur et de l'arthrite

Discoveries for life / Découvertes pour la vie

The CIHR Institute of Musculoskeletal Health and Arthritis (CIHR-IMHA) is proud to support the PREMUS Conference 2016 in Toronto.

The CIHR Institute of Musculoskeletal Health and Arthritis (CIHR-IMHA) invests in research related to bones, joints, muscles, skin, and teeth. By supporting advances in prevention, diagnosis, and treatment, IMHA seeks to promote active living, preserve mobility, and improve oral health for Canadians.

Please visit www.cihr-irsc.gc.ca for more information.

L'Institut de l'appareil locomoteur et de l'arthrite des IRSC (IALA des IRSC) est fier d'appuyer la conférence PREMUS 2016 qui aura lieu à Toronto.

L'Institut de l'appareil locomoteur et de l'arthrite des IRSC (IALA des IRSC) investit dans la recherche sur la santé osseuse, articulaire, musculaire, cutanée et buccodentaire. En appuyant les progrès au chapitre de la prévention, du diagnostic et du traitement des maladies, l'IALA cherche à promouvoir une vie active, à préserver la mobilité et à améliorer la santé buccodentaire de la population canadienne.

Pour en savoir davantage rendez-vous au www.irsc-cihr.gc.ca.

Integrating Sex & Gender in Health Research

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Did you know?

- Chronic pain hypersensitivity is mediated by microglial cells in male mice but not in female mice.¹
- Self-reported data in studies may change depending on whether interviews are conducted by male or female researchers.²
- New research suggests that gender, independent of sex, predicts poor outcomes of early heart disease.^{3,4,5}

Visit <http://www.cihr-irsc-igh-isfh.ca/> to learn more about integrating sex and gender into health research.

¹ Sorge RE, Mapplebeck JCS, Rosen S, et al. Different immune cells mediate mechanical pain hypersensitivity in male and female mice. *Nature neuroscience*. 2015;18(8):1081-1083. doi:10.1038/nn.4053.
² Levine, Fredric M., and Laura Lee De Simone. "The effects of experimenter gender on pain report in male and female subjects." *Pain* 44.1 (1991): 69-72.
³ Pelletier R, Khan NA, Cox J, et al. Sex Versus Gender-Related Characteristics: Which Predicts Outcome After Acute Coronary Syndrome in the Young? *J Am Coll Cardiol*. 2016;67(2):127-135. doi:10.1016/j.jacc.2015.10.067.
⁴ Spence JD, Pilote L. Importance of sex and gender in atherosclerosis and cardiovascular disease. *Atherosclerosis*. 2015;241(1):208-10. doi:10.1016/j.atherosclerosis.2015.04.806.
⁵ Pelletier R, Ditto B, Pilote L. A composite measure of gender and its association with risk factors in patients with premature acute coronary syndrome. *Psychosom Med*. 2015;77(5):517-26. doi: 10.1097/PSY.0000000000000186.



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This program was put together by members of the Knowledge Transfer & Exchange and Research Operations teams at the Institute for Work & Health.

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