



The Canadian Pain Society  
43<sup>rd</sup> Annual Scientific Meeting  
May 10-12, 2023  
Banff Springs Conference Centre  
Brochure

Updated March 10, 2023

## Learning Objectives

At the end of this conference, participants will be able to:

- Apply acquired knowledge to foster collaborative relationships and knowledge exchange between research scientists, health care professionals, trainees, and persons with lived experience, all with a shared focus on pain;
- Describe and critically analyze recent research on the mechanisms and management of pain with our diverse, multidisciplinary membership; and
- Integrate activities and understanding that will help improve access to high quality pain care, including preventing and treating pain more effectively. Concurrent sessions have been coordinated to encompass mechanisms of pain, biopsychosocial factors of pain, pain treatments, and pain programs, education, policy, and advocacy.

## Registration Desk Hours

May 10: 1400 – 1700h

May 11: 0700 – 1615h

May 12: 0700 – 1615h

**A minimum of 25% of each session will be dedicated to participant interaction.**

## Wednesday May 10, 2023

1400-1700h     Registration is open

1700-1900h     **Welcome:** Dr. John Pereira

**Opening Remarks:** Drs. Michael Hildebrand & Gabrielle Pagé

Special Address and Keynote Presentations by:  
Early Career and Distinguished Career Award Recipients  
Presentation and Keynote Presentation of Distinguished Career Award, M. Choinière  
Presentation and Keynote Presentation of Early Career Award, A. Khoutorsky

1900-2100h     Welcome Reception

## Thursday May 11, 2023

0700-0800h     Registration and check in

0700-0800h     Breakfast

0800-0830h     Opening Remarks and Special Address

0830-0930h     **Mary Ellen Jeans Keynote: Fibromyalgia: Attempts at Uncovering the Pathophysiology**  
Dr. Claudia Sommer

**At the end of this presentation, the participant will be able to:**

- Understand and use the current criteria for the fibromyalgia syndrome.
- Name and critically evaluate current theories on the pathophysiology of fibromyalgia.
- Discuss peripheral and central components of the fibromyalgia syndrome.



0930-0945h	Poster Pitches
0945-1000h	Refreshment Break, Posters, Exhibits are open
1000-1100h	Poster Session One and Judging
1100-1215h	<b>Concurrent Session – One</b>

### **The Impact of Sleep and Chronobiology on Nociception and Chronic Pain**

Chair: J. Daly-Cyr Speakers: G. Neely, N. Ghasemlou, G. Pagé

#### **At the end of this presentation, participants will be able to:**

- Recognize the interplay between pain and sleep first evolved ~550 million years ago and may have provided a selective advantage over evolution.
- Evaluate neuroinflammatory mechanisms regulating circadian nociception, and why they may be selective for one sex over the other.
- Identify specific profiles of pain rhythmicity in low back pain and understand how they are associated with psychosocial outcomes.

### **Pediatric Chronic Postsurgical Pain: Altering Pain Trajectories**

Chair: J. Tyrrell Speakers: B. Rosenbloom, L. Isaac, D. Ruskin

#### **At the end of this presentation, participants will be able to:**

- Describe the four essential elements of a pediatric Transitional Pain Service and its role in the prevention of chronic post-surgical pain and associated sequelae.
- Identify the risk factors for the development of chronic post-surgical pain in children and youth.
- Describe the role of psychological interventions in the prevention of CPSP.

### **Innovations in Complex Cancer Pain Research: Learning from Real-world Clinical Experiences to Improve Research Methodology and Clinical Practice**

Chairs: M. Bouchard & L. Gauthier Speakers: P. Bérubé-Mercier, J. Gewandter, D. Langford

#### **At the end of this presentation, participants will be able to:**

- Identify methodological improvements to enhance the quality of ClinROM and PROM in assessing CIPN.
- Develop strategies that can be implemented to optimize the design of CIPN (and other pain) prevention trials.
- Appreciate the tremendous complexity of cancer pain and understand strategies that can be used to better capture the pain experience as a whole.



## **Pain Education in Canada: New Research in Pre- and Post- Licensure Learning and Outcomes**

Chair: I. Cioffi Speakers: S. Langlois, C. Dale, S. Hassan

### **At the end of this presentation, participants will be able to:**

- Recognize disparities in pain learning opportunities in Canada.
- Articulate the pain learning needs and experiences of Canadian pre-and post-licensure health care professionals.
- Identify opportunities to measure knowledge and competence in pain management.

1220-1320h Lunch

1320-1420h **Plenary: Rethinking Equity, Diversity, Inclusion and Accessibility in 2023**

Dr. Gaynor Watson-Creed

### **At the end of this presentation, the participant will be able to:**

- Recognize how practice and profession of medicine has complicit in upholding forms of oppression, using racism as the primary example.
- Explore the concept of anti-oppressive practice, including the concepts of identity, intersectionality, and power.
- Reflect on the biases we are left with and how we might react with fragility when they are exposed.

1430-1545h **Concurrent Session – Two**

### **Sex Differences in Pain and Analgesia Mechanisms: Evidence from Animal and Human Brain Imaging**

Chair: J. Da Silva Speakers: J. Da Silva, J. Moron-Concepcion, N. Osborne

### **At the end of this presentation, participants will be able to:**

- Reflect on the impact of sex and age on central mechanisms of pain, with focus on functional connectivity of descending pain inhibitory pathways.
- Identify how pain impacts motivational states that may drive drug seeking behavior in a sex-dependent manner.
- Recognize commonalities in basic and clinical studies exhibiting sex differences in brain plasticity in chronic pain.

### **Early Life Trauma and Chronic Pain Across the Lifespan and Generations: Identifying Mechanisms across Species and New Intervention Targets to Break the Cycle**

Chair: J. Belton Speakers: R. Mychasiuk, M. Noel, C. Shenk

### **At the end of this presentation, participants will be able to:**

- Define some of the epigenetic mechanisms responsible for the intergenerational transmission of chronic pain risk.
- Recognize new emerging, longitudinal data from both clinical and preclinical models, the key neurobiological and social mechanisms that underlie the trauma-chronic pain relationship in adolescence and its intergenerational transmission.
- Apply validating behaviors to the recovery from early life adversity and the management of pediatric chronic pain.



## **Classification of Chronic Primary Pain in ICD 11 - Does Nociplastic Pain Terminology Allow for Better Diagnostic Categorization and Enhanced Treatment Opportunities?**

Chair: N. Mittal Speakers: N. Mittal, M.A. Fitzcharles, A. Mailis

### **At the end of this presentation, participants will be able to:**

- Describe the new framework and classification of chronic primary pain according to the ICD 11 chronic pain classification.
- Review the new structure of chronic primary musculoskeletal pains and discuss chronic primary widespread pain and common masked pain conditions that require differential diagnosis.
- Describe the limitations of the current framework of nociplastic pain in relation to the classification of chronic primary pain.

## **Trainee Workshop: Hacking Your Way Through CIHR Funding with the Lens of Equity, Diversity, and Inclusion**

Dr. Rebecca Pillai

### **At the end of this presentation, participants will be able to:**

- Conducting a training session to improve the trainees and increase trainees' proficiency on the obtention of funding through the Canadian Institutes of Health Research (CIHR) imparted by Dr. Rebecca Pillai.
- Fostering collaborative relationships and knowledge exchange between research trainees from all stages and well-settled professionals all with a shared focus on pain.
- Providing the CPS trainees, a safe space to understand how intersectional identities and life experiences mold the career of established professionals in the pain world.

1545-1615h Refreshment Break, Posters, Exhibits are open

1615-1730h **Concurrent Session – Three**

## **Contribution of Non-neuronal Cells to Sex Differences in Nociception and the Transition from Acute to Chronic Pain**

Chair: G. Descalzi Speakers: G. Laumet, V. Tawfik, G. Descalzi

### **At the end of this presentation, participants will be able to:**

- Recognize the involvement of peripheral immune cells in the development and resolution of chronic pain.
- Describe microglia activation in the spinal cord, and how they contribute to chronic pain in a sexually dimorphic manner.
- Describe how chronic inflammatory pain engages astrocyte-neuronal metabolic coupling in the cingulate cortex of mice in a sexually dimorphic manner.



## **The Burden of Not Knowing: How Diagnostic and Sensory Uncertainty Impact on Pain Outcomes and Chronic Pain Disability**

Chair: A. Meulders Speakers: A. Meulders, T. Stanton, A. Neville

### **At the end of this presentation, participants will be able to:**

- Define the diagnostic uncertainty in the context of pediatric chronic pain and how changes in parental uncertainty are connected to children's pain outcomes.
- Explore the role of sensory uncertainty in pain responses and protective behavior.
- Evaluate how diagnostic and sensory uncertainty can be targeted therapeutically.

## **Mechanisms of Non-Pharmacological and Complementary Analgesic Methods: Evidence from Brain Imaging**

Chair: N. Osborne Speakers: Y. Wang, F. Zeidan, M. Moayed

### **At the end of this presentation, participants will be able to:**

- Evaluate the efficacy of different non-pharmacological analgesic approaches.
- Assess differences and overlap in the mechanisms of different non-pharmacological analgesic approaches.
- Develop an understanding of factors that can affect analgesic mechanisms.

## **Addressing the Gap: Innovative Pediatric Pain Program Solutions to Address the Growing Demand**

Chair: N. Rasic Speakers: L. Rayner, W. Gaultney, J. Rabbitts, A. Demchuk

### **At the end of this presentation, participants will be able to:**

- Identify and discuss key elements of successful project implementation from both an art and science perspective for pediatric pain programs within tertiary care centers.
- Describe relevant processes of pediatric pain program development and expansion in remote, underserved regions.
- Discuss development and feasibility results of a scalable peri-operative digital health intervention teaching cognitive-behavioral skills to prevent chronic pain in adolescents undergoing spinal fusion surgery.

1830-2200h Trainee Social

1830h → This is a free evening for all attendees.  
If you are dining at the hotel, please ensure you make reservations in advance.

## **Friday May 12, 2023**

0700-0800h Registration and check in

0700-0800 Breakfast

0800-0815h Opening Remarks



0815-0915h **Plenary: Neuroimmune Interactions for the Induction and Resolution of Pain**  
Dr. Ru-Rong Ji

**At the end of this presentation, participants will be able to:**

- Describe the role of glial and immune cells in the induction and resolution of pain.
- Review evidence that pro-resolution mediators, such as resolvins, can alleviate pain.
- Discuss how neuromodulation controls pain via neuroimmune interactions.

0920-1035h **Concurrent Sessions – Four**

**The Role of the Gut Microbiome in Somatosensation and Pain - Mechanisms and Clinical Implications**

Chair: A. Khoutorsky Speakers: C. Altier, S. Shen, A. Minerbi

**At the end of this presentation, participants will be able to:**

- Identify the importance of the microbiota in regulating sensory functions. They will gain a better understanding of the role of the microbiota on nociceptor specification and excitability and learn about the mechanisms by which the microbiota regulates nociceptor function.
- Develop a framework for understanding the role of gut microbiome metabolites in brain health and pain.
- Describe the role of gut microbiome in fibromyalgia in humans and animal models. Available measures of microbiome manipulation will be discussed. Attendees will also study the clinical effects of diet and fecal microbiome transplantation on symptom severity and the composition of the gut microbiome in women with fibromyalgia.

**Pain Experiences of Youth with Neurodevelopmental Disabilities (NDDs): Bridging Research and Practice**

Chair: S. Noyek Speakers: C. Nania, D. Moore, C.M. McMurtry

**At the end of this presentation, participants will be able to:**

- Describe the current status and innovations of pain research within basic science, psychology, and health disciplines across different populations of youth with NDDs.
- Gain knowledge of the challenges to pain assessment, management, and efficacy of pain management in youth with NDDs.
- Gather insights from persons with lived experience and contribute to an engaged discussion of how stakeholders can contribute to a more holistic understanding of pain and mental health in youth with NDDs.

**Hot Topics Trainee Presentations**

**At the end of this session, participants will be able to:**

- Describe the latest research in pain mechanisms and clinical care; and
- Critique and evaluate emerging topics in pain research.

1. The Comparative Effectiveness of CGRP Monoclonal Antibody Therapies and Other Pharmacotherapies for Migraine Prevention: A Systematic Review and Network Meta-analysis. J. Busse



2. Selective Lesion of ClaustrO-cortical Circuitry Enhances Pain. C.Faig
3. Fecal Microbiota Transplantation from Fibromyalgia Patients Causes Pain in Mice  
W. Cai
4. Vapourized Cannabis Transiently Alleviates Neuropathic Pain and Modulates Spinal Microglia Activity in male rat. N. van den Hoogen
5. Parental Validation in Parent-Child Pain Communication About Pediatric Chronic Pain.  
M. Pavlova
6. The Interaction Between Adverse Childhood Experiences and Pain Predicts the Severity of Suicidality in Youth Over Time. P. Tutelman

**The Intersection of Pain and Addiction: Using Harm Reduction Strategies to Keep Patients with Chronic Pain Safe Within the Context of the Current Opioid Crisis**

Chair: H. Clarke Speakers: K. Nicholson, S. Ladak, A. Sutherland

**At the end of this presentation, participants will be able to:**

- Acquire a nuanced understanding of the impact of prescribing guidelines on the current medico-legal landscape and the human rights of patients.
- Define patient-centered application of harm reduction during hospitalization.
- Explore how pain and addiction medicine services can co-exist to improve patient outcomes.

1035-1100h Refreshment Break, Posters, Exhibits are open

1100-1215h **Concurrent Session – Five**

**Pain and Time**

Chair: L. Diatchenko Speakers: L. Diatchenko, R. Ji, J. Mogil

**At the end of this presentation, participants will be able to:**

- Interpret the evidence of the dynamics of active biological processes that underlies pain resolution.
- Discover how pro-resolving mediators and their receptors regulate the resolution processes in immune/glial cells and neurons.
- Explore how pain-relevant biological changes occurring many months after injury.

**Neurophysiological Changes Following Physical or Emotional Childhood Trauma in the Transition from Acute to Chronic Pain**

Chair: S. Nelson Speakers: J. Christianson, S. Miller, S. Nelson, T. Pigott

**At the end of this presentation, participants will be able to:**

- Compare adolescent brain development in rodents with human brain development during this time period, as well as the sex-dependent similarities and differences between the chronification of pain in adolescents and adults.



- Demonstrate how exposure to trauma may alter brain functioning and modify pain thresholds, to potentially increase the risk of developing chronic pain in a non-clinical sample of adolescents.
- Identify how the physiological stress response may manifest in youth with chronic pain and potentially contribute to pain chronicity.

**Can Clinical Trials Translate Pain Science into Improved Care for People Suffering from Pain? Incorporating Basic Principles with Patient Engagement and Real-world Clinical Practice**

Chair: I. Gilron Speakers: I. Gilron, D. Richards, J. Khan

**At the end of this presentation, participants will be able to:**

- Describe various aspects of participant population, characteristics of the treatment intervention and outcomes of interest when balancing internal validity with generalizability in clinical trials of pain treatments.
- Identify new efforts whereby patient engagement is guiding recent innovations in the design, conduct and interpretation of clinical pain trials.
- Recognize challenges and opportunities associated with the interpretation of clinical trials of pain treatments and their implementation into clinical practice.

**Exploring and Healing Pediatric Chronic Pain in Indigenous Youth and Families Through Two-Eyed Seeing**

Chair: F. Di Valentin Speakers: A. Kandasamy, J. Gregory, M. Syeda, H. Talbot, S. Spence.

**At the end of this presentation, participants will be able to:**

- Explore expressions of pain and healing in Indigenous youth and caregivers.
- Exemplify Two-Eyed Seeing in clinical and research methodology (formerly provide a template for two eyed seeing clinical and research methodology).
- Report on an intervention cocreated by indigenous youth and their caregivers

1220-1320h Lunch

1330-1445h **Concurrent Session – Six**

**Bridging the Gap: Translational Approaches to Studying Pain in Rodent and Human Models**

Chair: E. Tsai Speakers: A. Dedek, K. Sadler, B. Copits

**At the end of this presentation, participants will be able to:**

- Describe barriers that exist between rodent pain models and the clinical population.
- Formulate applications of translational preclinical human tissue models to study functional properties of pain-processing neurons.
- Develop strategies for pairing rodent pain models with preclinical human tissue applications.



## Considering the Multiple Identities of Patients with Chronic Pain: How Can we Tailor Pain Care to Support Young Athletes?

Chairs: M. Noel & K. Dittrich Speakers: L. Harrison, K. Hurtubise, C. Hess

### At the end of this presentation, participants will be able to:

- Identify the impact chronic pain can have on a high-performance, Olympic level athlete, including intersectionality of identities and unique considerations for treatment.
- Tailor interdisciplinary interventions for chronic pain to the unique needs of athletes.
- Acquire a framework for interprofessional collaboration between pain and sport spheres to improve outcomes for young athletes with chronic pain.

## Placebo Effects with Treatments for Pain - Making Much Out of Nothing at all?

Chair: J. Hashmi Speakers: J. Hashmi, J. Markman, A. Bhatia

### At the end of this presentation, participants will be able to:

- Describe the placebo effect and its relevance in affecting outcomes of pain treatments.
- Identify the mechanisms involved in the placebo effect and the evidence-base supporting these.
- Recognize the differential magnitude of placebo effects associated with analgesic treatments and their impact on treatment decisions and outcomes.

## Mobile Health Data for Pediatric Pain: Inter-institutional Experiences and Best Practices for Patient-centred Data Capture, Analysis, and Visualization.

Chair: V. Mohabir Speakers: C. Laloo, K. Boerner, J. Kossowsky (virtually)

### At the end of this presentation, participants will be able to:

- Articulate the considerations and benefits of different types of mHealth data capture and visualizations for youth with acute and chronic pain.
- Analyze the advantages and disadvantages of various platform choices for mHealth data capture, analysis, and visualization.
- Formulate a roadmap for meaningful inclusion of youth voices across the developmental spectrum into the design and implementation of data capture and visualization processes.

1445-1500h Refreshment Break, Posters, Exhibits are open

1500-1600h Poster Session Two

1600-1715h **Concurrent Sessions – Seven**

## Prenatal and Neonatal Exposure to Pain and its Long-Term Effects on the Developing Brain

Chair: J. Miller Speakers: J. Jessa, E. Duerden, S. Beggs

### At the end of this presentation, participants will be able to:

- Describe trajectories of pain intensity, pain catastrophizing and pain interference during the perinatal period and, the possible implications of trajectory membership for both the mothers and infants.



- Identify the motivation and methodologies for studying early brain development and outcomes in high-risk infants, with an emphasis on risk factors for altered brain development.
- Demonstrate how complementary methodologies between preclinical and clinical research can be used to mechanistically understand the lasting impact of early life pain.

### **Perceived Injustice and Pain: Causes, Consequences and Mechanisms of Action**

Chair: M. Sullivan Speakers: H. Adams, J. Carrière. M. Sullivan

#### **At the end of this presentation, participants will be able to:**

- Familiarize themselves with what is known about the consequences of perceived injustice associated with pain.
- Explore research findings addressing the determinant of perceived injustice in individuals with disabling musculoskeletal injuries.
- Recognize injured workers' perspectives on sources of injustice in the immediate aftermath of work injury.

### **Implantable Neuromodulation Therapies for Pain - As Simple as Buzzing the Pain Away or More to it than meets the eye?**

Chair: A. Bhatia Speakers: K. MacDougall. J. Osborn, V. Mohabir

#### **At the end of this presentation, participants will be able to:**

- Recognize the types of neuromodulation therapies and their application in relieving pain.
- Identify the indications for neuromodulation for treating common refractory pain syndromes and the evidence-base supporting these.
- Appraise the limitations that impact on the use of neuromodulation for pain including gaps in awareness of healthcare providers and support from healthcare payors.

### **Driving Policy Development for Pain in Canada: Perspectives from a Governmental, Lived Experience, Clinician, and Advocacy Group Lens**

Chairs: F. Campbell Speakers: J. Laliberté, J.F. Leroux, M. Hudspith, T. Wasylak

#### **At the end of this presentation, participants will be able to:**

- Describe the roles and responsibilities of different stakeholders in driving policy changes in pain-related areas.
- Learners will be able to describe challenges and limitations in the development implementation of pain policies at the national, federal and provincial/territorial levels.
- Recognize progress in advancing pain policies at the national, federal and provincial/territorial levels.

1830-2300h

President's Gala Dinner

*Included with both full conference and Friday-only registrations. Formal attire.*

The Canadian Pain Society would like to thank Girasole Events  
for organizing our 43<sup>rd</sup> Annual Scientific Meeting

