

# CPN

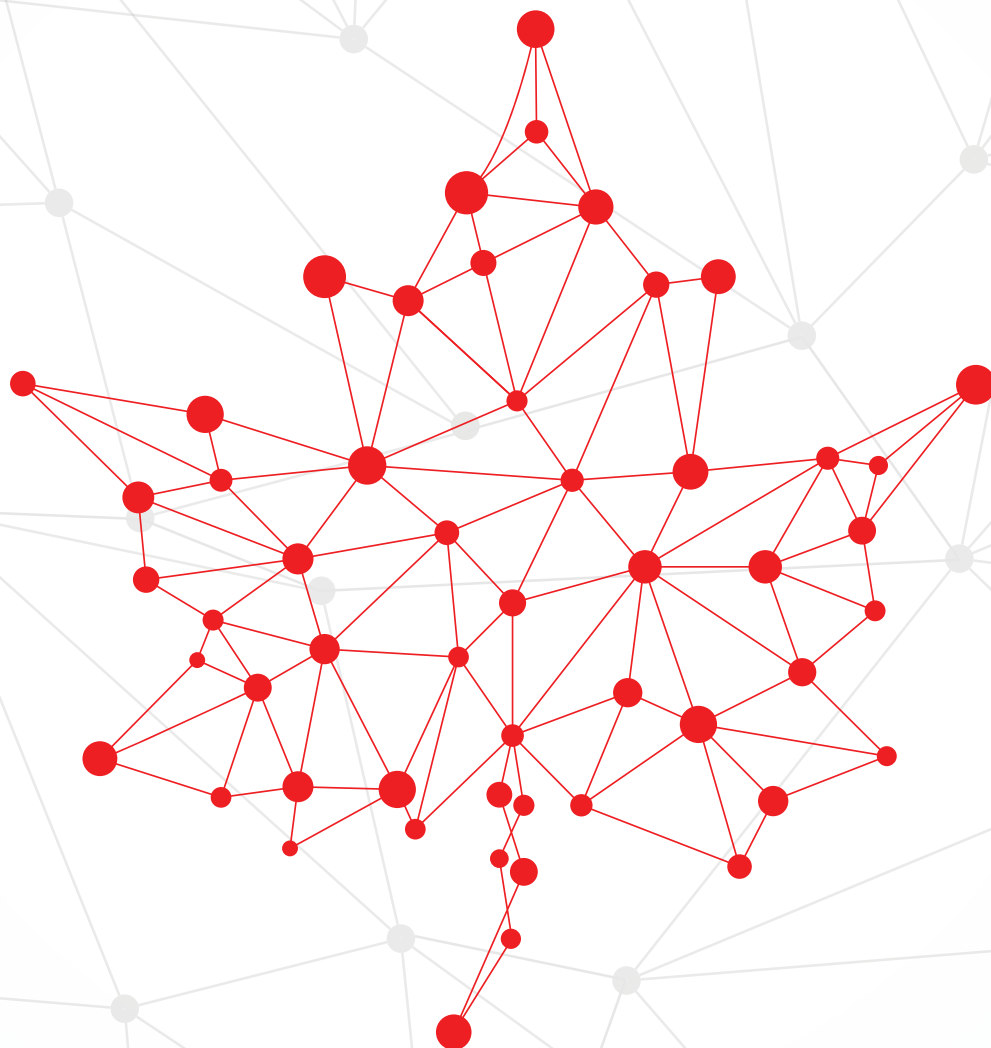
CHRONIC PAIN NETWORK

Strategy for Patient-Oriented Research

# SPOR

Putting Patients First 

# Annual Report



# 2016/2017



## SPOR Chronic Pa



McMaster University at SPOR official announcement, March 31, 2016.

**In This Picture:** Chronic Pain Network Scientific Director, Dr. Norman Buckley, delivers a presentation about the Network to Hamilton Third Age Learning

# What's Inside

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# About the Chronic Pain Network

## Building a Network

Statistically, one in five Canadians over the age of 18 is currently living with chronic pain. Considered by many to be just a symptom of a greater condition, targeted efforts to reduce chronic pain have historically lacked adequate research infrastructure. It is estimated that the cost of chronic pain falls somewhere around \$42 billion annually, with up to 60% of adult sufferers facing income or job loss. There are dire challenges to maintaining quality of life - an issue that will only become increasingly prevalent as the population ages. It was out of this need that the Chronic Pain Network (CPN) was born.

The CPN is one of five networks addressing chronic disease to receive a five-year grant for \$12.5 million from the Canadian Institute of Health Research's Strategy for Patient Oriented Research (SPOR). Reporting for the grant began January 2016 and will conclude March 2021.

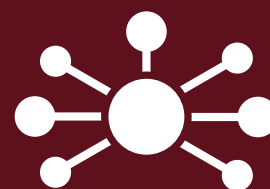
The overarching mission of the Network is to innovate and improve the quality and delivery of pain prevention, assessment, management and research for all Canadians. Creating opportunities for patients, researchers, healthcare professionals, educators, industry and government policy advisors from across the country to work in collaboration, the Network supports, coordinates and synchronizes leading, innovative and high-impact research.

## NETWORK BY THE NUMBERS

**15** Principal Applicants

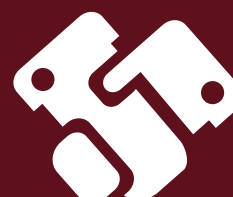


**24** Co-Applicants



**12** CRN Sites

**20**  
Network  
Funded  
Projects



**27**  
Supporting  
Institutions

# Letter from the Scientific Director

Dr. Norman Buckley

Our vision is to “Change the way pain is managed in Canada...by enhancing research through increased collaboration...and creation of a (clinical) research network...establishing effective partnerships with patients and patient organizations.....enhancing training of highly qualified professionals...and bring this information to the attention of policy makers across the country...” Since the network funding was formally announced in March 2016, we have made considerable progress towards fulfillment of this vision, but there is still a long way to go.

We have our Coordinating Centre Team in place, signed contracts with all 25 of our network partners, and have flowed money to support the activities of the six committees supporting our governance structure and 22 individual Network-affiliated research projects, some of which were able to start with their internal matching funds and so are now coming up for their one year review.

The research priorities identified by the Patient Engagement Collaboration grant (Stinson, Poulin) are in the process of being published and will guide our subsequent work. A robust Patient Engagement committee has recruited patient partners who now co-chair each of our committees and have been paired with Project PIs to create an ongoing dialogue to inculcate our research with the concepts of patient engagement.

Our social media platform is the most widely followed of the five chronic disease networks, with daily posts on scientific and social issues to do with pain and its management. Webinars for training within the network as well as addressing broader topics in pain research and management have been created and are available online. The Pain+ Knowledge Translation (Health Information Research Unit) product created with a grant and studied by PI Joy MacDermid has been rebranded Pain+ CPN, and is serving as a solid means of identifying and disseminating knowledge to do with pain research and management - please sign onto the service.

Training events including the North American Pain School, the Connaught Summer Pain School, trainee sessions at the Canadian Pain Society and the International Pediatric pain meeting in Malaysia have all been supported by our network Training and Mentoring committee.

The Registry Working Group has established a new partnership with the Canadian Agency on Drugs and Technology in Health (CADTH) to update the ‘STOP-PAIN’ study of 10 years past led by Manon Choinière (RWG co-Chair) and Philip Peng, and create a new environmental scan of treatment resources, wait times etc. in Canada, thus avoiding duplication of efforts and speeding up the process of data collection.

The 12 University affiliated pain clinics across the country (four pediatric and eight adult) which make up the Clinical Research Network have all received their network funding, and 11 have completed recruiting of their on-site Research coordinators. The CRN will support network initiated trials, registry data collection and provide other information to inform trials as well as brainstorming to develop new research ideas.

This first annual meeting will be the first time this many members of the network have been in a face-to-face meeting - we could not have developed the application and the network itself without telecommunications but there is nothing like meeting in person. Take advantage of the opportunity to see our colleagues face to face, discuss new ideas and establish new collaborations. And, not only renew existing friendships, but make at least one new friend! This network can provide an opportunity to ensure that best practice pain care gets identified, improved and widely disseminated across the country.

# Network Road Map

## Where We Are & Where We're Going

The CPN was built upon a foundation established by collaborations amongst some of the leading names and organizations in pain research and advocacy across the country. Dr. Cathy Smyth spearheaded the SPOR grant application process by utilizing connections through the Academic Pain Directors of Canada. A Letter of Intent was submitted in January 2015 and was accepted in March of the same year. The full application was submitted in September 2015. The CPN was one of five networks in chronic disease to be awarded the SPOR grant. Funds awarded through the grant will run until March 2021.

### YEAR FIVE

Minimum data set for Adult and Pediatric registries centralized. Projects conclude and results prepared for publication.

### YEAR FOUR

Utilize existing channels and create new opportunities for knowledge translation, and training and mentoring to increase number of highly qualified professionals in pain management.

### YEAR THREE

Minimum data set for Adult and Pediatric Registries defined and implemented. Monthly webinars in Patient Engagement offered to help inform/improve PE in future research projects.

### YEAR TWO

Project reviews begin and the first Annual Meeting is held. Community outreach begins to support Network sustainability.

### YEAR ONE

Administrative team and committees are formed. Contracts are signed and first projects begin.



## Special Aspects of Consideration

### Sex and Gender

There are substantial sex and gender differences in biological, psychophysical and psychological components of pain, creating a need for careful attention to sex and gender in pain research. CPN projects, regardless of their focus, are asked to explore sex and gender and include efforts to maximize equitable participant recruitment across sex/gender, balanced by patient input into study design, and conduct sex/gender based subgroup analyses of study results. To help guide these efforts, a Sex and Gender expert sits on the CPN's Patient Oriented Research committee. Since pain and gender are both complex, multidimensional phenomena, understanding the dynamic relationships is challenging and often requires modelling of complex pathways that require large samples, multiple contexts and analytical approaches. Research projects embedded within the network will advance our understanding of gender, work and pain, by incorporating valid and fully powered biopsychosocial models.

### Vulnerable Populations

In developing the Network, concern was voiced regarding poor quality health care interactions between clinicians and Aboriginal peoples regarding pain-related information. The historical trauma of the Residential School experience has left Aboriginal people with both physical and emotional pain, much of which has been left untreated. High rates of chronic disease combined with many culturally 'stoic' beliefs about pain expression have created major problems when continuing to assess pain using only European-based research methods. The Mi'kmaw First Nations People of Canada do not even have a translatable word in their language for pain, but they do have a word for hurt. To address these challenges and encourage interaction between researchers and Indigenous populations, the CPN created an Indigenous Health Research Advisory committee, which includes Indigenous patient representatives, Elders and Aboriginal health leaders. The committee has created tools, made available to researchers, outlining best practices and proper procedure when engaging in research with Indigenous communities.

A further aspect of our network is the consideration of chronic pain throughout the lifespan. Many Network projects incorporate careful attention to vulnerable populations, such as infants, children and the elderly. With more than 15% of Canadians over the age of 65, there is a pressing need to address chronic pain in older adults.



**In This Photo:** Chronic Pain Network Patient Partner and co-chair of the Patient Engagement committee Mario Di Carlo speaks at the Canadian Pain Society's Annual Scientific Meeting about his committee's activities.

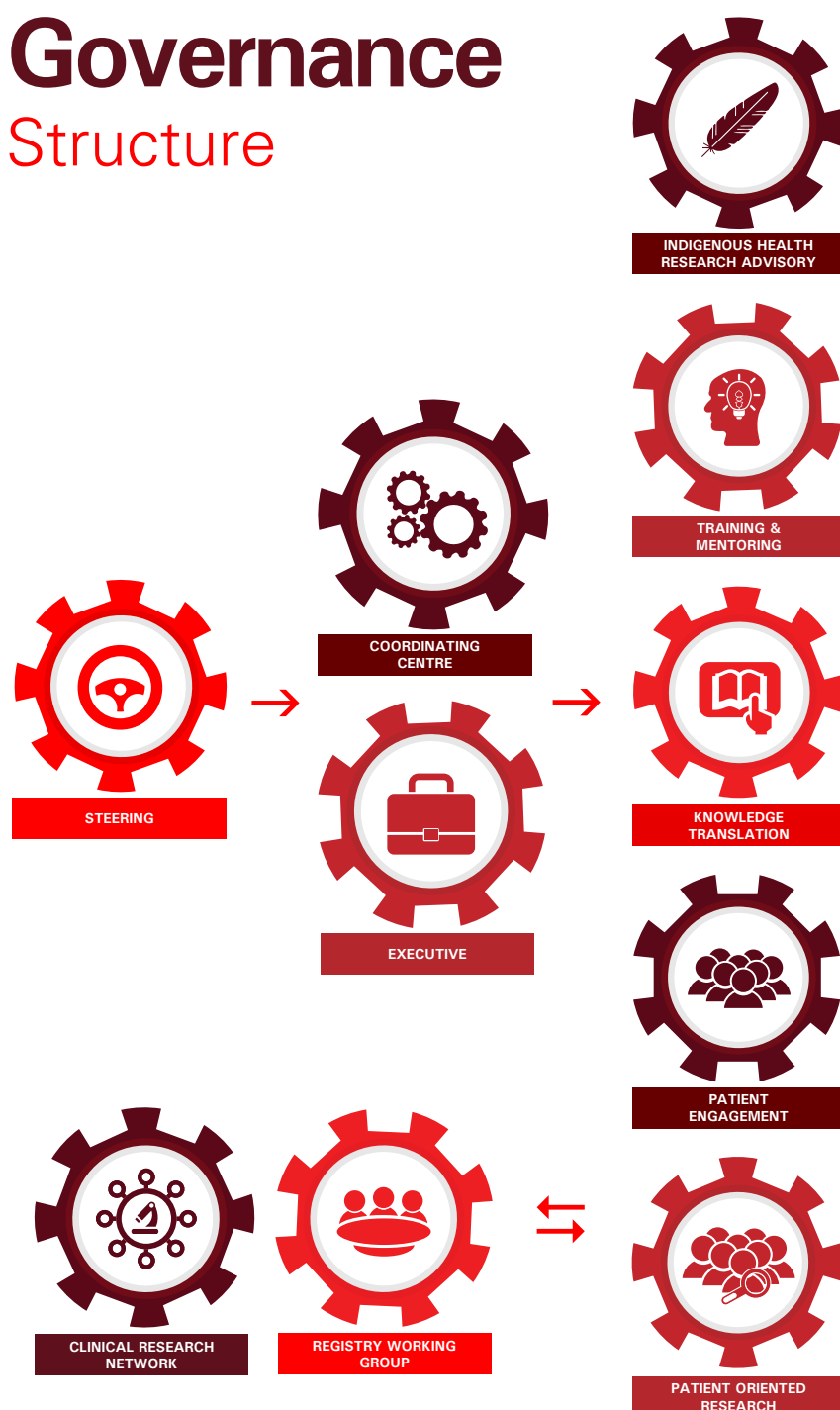


# Committees

The Chronic Pain Network governance model was developed to support the five principles established by CIHR: (1) value added in working with patients, (2) mutual learning and understanding to build trust and credibility, (3) openness to enhance transparency and accountability, (4) inclusivity in the approach to patient engagement, and (5) support patient-partners to ensure their full participation.

CPN committees work in synergy with one another to ensure maximized opportunities for patient engagement and knowledge translation in all aspects of the research process.

## Governance Structure



Indigenous Health Research Advisory and Training & Mentoring committees work together to help educate current and future generations of pain researchers about the unique challenges facing our Indigenous populations and best practices when working with Indigenous populations.

Training & Mentoring and Knowledge Translation committees work together to ensure opportunities for meaningful education in patient-oriented research in order to grow new generations of highly qualified personnel.

Knowledge Translation and Patient Engagement committees work together to ensure content relevant to patients is shared, through appropriate channels.

Patient Engagement and Patient Oriented Research committees work together to ensure patient priorities are included in the development of research strategies and that opportunities for patient involvement in research are maximized.

# Committee Activities

## What We've Been Up To

### STEERING COMMITTEE

**Co-Chairs:** Dr. Norm Buckley & Linda Wilhelm\*

**Committee Members:** Lynn Cooper\*, Dr. Manon Choinière, Dr. Karen Davis, Dr. Luda Diatchenko, Dr. Allen Finley, Dr. Ian Gilron, Maria Hudspith, Dr. Alfonso Iorio, Dr. Margot Latimer, Dr. Joy MacDermid, Dr. Patricia Poulin, Dr. Cyril Schneider, Dr. Jennifer Stinson, Dr. Bonnie Stevens, Brent Scott, Kimberly Begley (Ex-Officio) and Megan Groves (Ex-Officio)

### EXECUTIVE COMMITTEE

**Co-Chairs:** Dr. Norm Buckley & Jacques Laliberté\*

**Committee Members:** Karen Smith\*, Dr. Manon Choinière, Dr. Ian Gilron, Maria Hudspith, Dr. Alfonso Iorio, Dr. Margot Latimer, Dr. Cyril Schneider, Dr. Bonnie Stevens, Kimberly Begley (Ex-Officio), Megan Groves (Ex-Officio) and Donna Marfisi (Ex-Officio)

### PATIENT ORIENTED RESEARCH COMMITTEE

**Co-Chairs:** Dr. Cyril Schneider & Billie Jo Bogden\*

**Committee Members:** Dr. Jason Busse, Dr. Louis Gendron, Dr. Ian Gilron, Tiffany Rice, Dr. Barry Sessle, Dr. Joy MacDermid, Mary Brachaniac\*, Marc White\*, Janice Sumpton\*, Dr. Norm Buckley (Ex-Officio), Kim Begley (Ex-Officio) and Donna Marfisi (Ex-Officio)

**Mandate:** To ensure that research projects funded by the Chronic Pain Network align with the Network's strategy.

#### Highlights:

- Established the process and schedule to review all CPN "already vetted" projects
- Created the project review template to be used to evaluate CPN project milestones with a focus on involvement of patient partner engagement, training and mentoring initiatives and knowledge translation strategies
- Started the review process of "already vetted" projects (which were funded as part of the initial grant application)
- Project reviews are conducted on an annual basis
- Funds are awarded on an annual basis and take into consideration the annual progress review and project budget

### PATIENT ENGAGEMENT COMMITTEE

**Co-Chairs:** Maria Hudspith & Mario Di Carlo\*

**Committee Members:** Kathleen Eubanks\*, Janet Gunderson\*,Carolynn Bulmer\*, Cyndi Sand-Eveland\*, Linda Wilhelm\*, Rebecca Lee\*, Therese Lane\*, Dawn Richards, Dr. Patricia Poulin, Dr. Jennifer Stinson, Dr. Norm Buckley (Ex-Officio), Kim Begley (Ex-Officio) and Donna Marfisi (Ex-Officio)

**Mandate:** To ensure meaningful engagement of diverse patients with chronic pain in the Governance and Committee structures and projects of the Network. To increase the capacity of: (a) network members to meaningfully engage patients in their research projects and (b) patients to be engaged in the network. To evaluate and report on the outcomes of patient engagement in Network activities.

#### Highlights:

- Worked in conjunction with the Patient Oriented Research committee to finalize Patient Engagement initiatives section on Chronic Pain Network project review template
- Created "Patient Engagement in Research Rounds" webinar series. These webinars focus on the experiences of Network members, both patients and researchers, in patient oriented research

\*Indicates Patient Partner

- CPN Patient Partners played active roles at the Canadian Pain Society's Annual Scientific Meeting and at the North American Pain School
- Initiated a collaboration with the CPN's Knowledge Translation Committee to develop guidelines to acknowledge patient participation in publications
- Created process for matching patient partners with research project leads

## KNOWLEDGE TRANSLATION COMMITTEE

**Co-Chairs:** Dr. Alfonso Iorio & Stephanie Perrault\*

**Committee Members:** Dr. Jason Busse, Dr. Bonnie Stevens, Dr. John Lavis, Dr. Christine Chambers, Dr. Jennifer Stinson, Dr. Ian Gilron, Dr. Howard Intrater, Dr. Nader Ghasemlou, Giulia Gnola, Mary Brachaniec\*, Isabel Jordan\*, Lesley Singer\*, Norm Buckley (Ex-Officio), Kim Begley (Ex-Officio), Megan Groves (Ex-Officio) and Donna Marfisi (Ex-Officio)

**Mandate:** To ensure dissemination of the output of the Network through multifaceted strategies to multiple audiences including health care professionals, researchers, policy makers, and the public. It will also facilitate contribution to original KT research.

### Highlights:

- In conjunction with the Health Information Research Unit (HIRU) at McMaster University, created and branded Pain+CPN - a premium literature service that provides access to current best evidence from health care research, to help inform health care professionals, individuals living with pain and caregivers
- Pain+CPN includes more than 110 journals (including all Cochrane reviews relevant to pain management), with a selection of articles by expert research staff concerning the cause, course, diagnosis, prediction, prevention and treatment of pain problems
- A small sub-committee has been appointed to help determine how patient participation in publications will be recognized
- The CPN has delivered several webinars, both internally (as part of SPOR mandated training) and externally, and is working with the Patient Engagement committee on the Patient Engagement in Research Rounds webinar series

## TRAINING & MENTORING COMMITTEE

**Co-Chairs:** Dr. Bonnie Stevens & Carley Ouellette\*

**Committee Members:** Dr. Jeff Mogil, Renata Musa, Dr. Judy Watt-Watson, Lesley Singer\*, Dr. Renée El-Gabalawy, Dr. Christine Chambers, Dr. Manon Choinière, Dr. Alfonso Iorio, Dr. Margot Latmer, Dr. Mike McGillion, Dr. Norm Buckley (Ex-Officio), Kim Begley (Ex-Officio) and Donna Marfisi (Ex-Officio)

**Mandate:** To provide high quality innovative patient-oriented research training within the Network, and to create and foster linkages between trainees and mentors, and between clinicians, consumers and researchers. These linkages will enhance interdisciplinary research collaboration, innovation and trainee success, and they will also provide diverse and unique partnerships across settings, networks and stakeholders.

### Highlights:

- Supported five major training & mentoring initiatives: Interprofessional Pain Curriculum (IPC), Pain Education Inter-Professional Resource (PEIR), Connaught Summer School, North American Pain School (NAPS) and Pain in Child Health (PICH)
- The 2017 North American Pain School (NAPS) session was attended by 33 graduate students and post docs, and incorporated two patient representatives from CPN
- This year 1,000 students participated in the University of Toronto Centre for the Study of Pain – Interfaculty Pain Curriculum (UTCSP-IPC). Three patients were on the patient panel this year
- The Connaught Summer School had approximately 30 trainees this year – 10 were international and 20 Canadian, including Québec

- The CPN Training & Mentoring Central Initiative that was supported this year was a training event at CPS. CPS had 150 trainees; approximately 50 attended the Training & Mentoring session. We also had a panel of three speakers, two of whom were CPN sponsored patient partners. The CPN sponsored the attendance of several patient partners and trainees

## INDIGENOUS HEALTH RESEARCH ADVISORY COMMITTEE

**Co-Chairs:** Dr. Margot Latimer, Sharon Rudderham & John .R. Sylliboy (Co-Chair Delegate)

**Committee Members:** Jane Abram (Elder Rep)\*, Chris Musquash (ACHH Team Member), Maria Hudspith, Sherise Paul-Gould\*, Margaret Lavalier (Elder Rep)\*, Brent Young (Indigenous Student Rep), Dr. Norm Buckley (Ex-Officio), Kim Begley (Ex-Officio) and Donna Marfisi (Ex-Officio)

**Mandate:** To ensure to generate Indigenous research knowledge that will be meaningful for the Network and will endeavor to share through diverse strategies for multiple audiences including communities, academics, health professionals, public and policy makers.

### Highlights:

- Dr. Margot Latimer & John R. Sylliboy provided a Chronic Pain Network update at the CIHR Institute of Musculoskeletal Health and Arthritis Conference in Winnipeg on Indigenous pain research
- Indigenous Student Representative, Brent Young, is creating an online directory of resources to guide the process of conducting health research when working with Indigenous communities
- Brent Young presented a poster on these findings at the Canadian Pain Society's Annual Scientific Meeting
- Members of IHRAC, as well as Dr. Patricia Poulin, represented the Chronic Pain Network at the Indigenous Health Research Caucus on Parliament Hill in June

## REGISTRY WORKING GROUP

**Co-Chairs:** Dr. Manon Choinière & Dr. Richard Hovey\*

**Committee Members:** Dr. Brenda Lau, Dr. Ian Gilron, Dr. Mark Ware, Dr. Jennifer Stinson, Roxane Bernier, Dr. Norm Buckley (Ex-Officio), Kim Begley (Ex-Officio) and Donna Marfisi (Ex-Officio)

## PEDIATRIC REGISTRY SUB-COMMITTEE

**Co-Chairs:** Dr. Jennifer Stinson & Carley Ouellette\*

**Committee Members:** Bruce Dick, Dr. Allen Finley, Dr. Melanie Noel, Tim Oberlander, Dr. Fiona Campbell, Lauren Harris, Jill Chorney, Pablo Ingelmo, Dr. Krista Baerg, Roxane Bernier, Dr. Norm Buckley (Ex-Officio), Kim Begley (Ex-Officio) and Donna Marfisi (Ex-Officio)

**Twice Yearly Members:** Alina Carter, Megan Greenough, Golda Milo-Manson, Abaerveldt Baerveldt, Susan Carter, Jennifer Crotagino, Sheri Findlay, Meghan McMurty

## ADULT REGISTRY SUB-COMMITTEE

**Co-Chairs:** Dr. Manon Choinière & Dr. Richard Hovey\*

**Committee Members:** Curtis May\*, Dr. Nicolas Beaudet, Dr. Mary Lynch, Dr. Dwight Moulin, Dr. Mark Ware, Dr. Ian Gilron, Dr. Brenda Lau, Dr. Garry Salisbury, Dr. Dave Walton, Sara Ahmed, Mike Gofeld, Richard Nahas, Owen Williamson, Ruth Dubin, Roxane Bernier, Dr. Norm Buckley (Ex-Officio), Kim Begley (Ex-Officio) and Donna Marfisi (Ex-Officio)

## IT REGISTRY SUB-COMMITTEE

**Co-Chairs:** Dr. Nicolas Beaudet & Patient Co-Chair to be Determined

**Committee Members:** Dr. Manon Choinière, Dr. Jennifer Stinson, Jean-Francois Ethier, Joseph Caffazo, Gary Lewis, Frank Sullivan, Catherine White, Roxane Bernier, Dr. Norm Buckley (Ex-Officio), Kim Begley (Ex-Officio) and Donna Marfisi (Ex-Officio)

**Mandate:** To put in place a Canadian registry of registries of chronic pain patients - i.e. a platform for harnessing existing patient registries and thereby allow data sharing for conducting research on chronic pain.

To support the development of new patient registry initiatives using a cohesive national approach by promoting the collection of a standard set of outcome measures amongst registries and the use of servers/platforms that can communicate.

To implement across Canada a common needs-based minimal set of quality indicators/ outcome measures in practice settings across the health care continuum that will serve clinical, administrative, and research purposes, and thereby constitute the core of a national registry of adult and pediatric patients suffering from chronic pain that will be used to collect population health level data and conduct large research projects aimed at improving the management of chronic pain for all Canadians.

### Highlights:

- Three subcommittees were created (adult, pediatric and IT) to help achieve these mandates
- The Registry Working Group (RWG) is currently carrying out an environmental scan of existing pain patient registries across Canada as well as those which are in the process of being developed for the adult and pediatric populations
- Working with the Pediatric Subcommittee and Dr. Mike Gofeld is the Ministry of Health in Ontario which has funded the SickKids Hospital and Michael DeGroote Pain Clinic (Hamilton Health Sciences) to conduct a two-year pilot study using the Centre for Healthcare Organizational and Innovation Research (CHOIR) platform as a data collection questionnaire tool for pediatric and adult patients
- The RWG is currently conducting a geographic mapping of existing multidisciplinary pain treatment clinics across Canada (location, characteristics, services provided). This is a replication of the CIHR-funded STOP-PAIN Study carried out 10 years ago. This study is carried out in partnership with the Canadian Agency for Drugs and Technologies in Health (CADTH) that has been mandated to identify barriers for obtaining optimal multidisciplinary treatment of chronic pain
- The Adult Subcommittee is currently conducting an online survey to prioritize the domains and subdomains to be included in the common minimal need-based data set that will constitute the core of the Adult Pain Patient Registry. This survey will be followed by a second one to identify the measurement instruments for assessing the domains/subdomains

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## CLINICAL RESEARCH NETWORK

**Co-Chairs:** Dr. Ian Gilron & Chris DeBow\*

**Committee Members:** Aaron McInnes, Dr. Saiffee Rashid, Nivez Rasic, Dr. Melanie Noel, Dr. Tiffany Rice, Dr. Krista Baerg, Dr. Renée El-Gabalawy, Dr. Howard Intrater, Dr. Allen Finley, Dr. Keith Jarvi, Dr. Patricia Poulin, Dr. Scott Duggan, Dr. Mary Lynch, Dr. Jennifer Stinson, Dr. Yoram Shir, Dr. Ramesh Zacharias, Dr. Fiona Campbell, Dr. Lauren Harris, Marc White\*, Dr. Susan Lau, Dr. Norm Buckley (Ex-Officio), Kim Begley (Ex-Officio) and Donna Marfisi (Ex-Officio)

**Mandate:** To carry out and direct all clinical research and clinical trial activities of the Chronic Pain Network.

### Highlights:

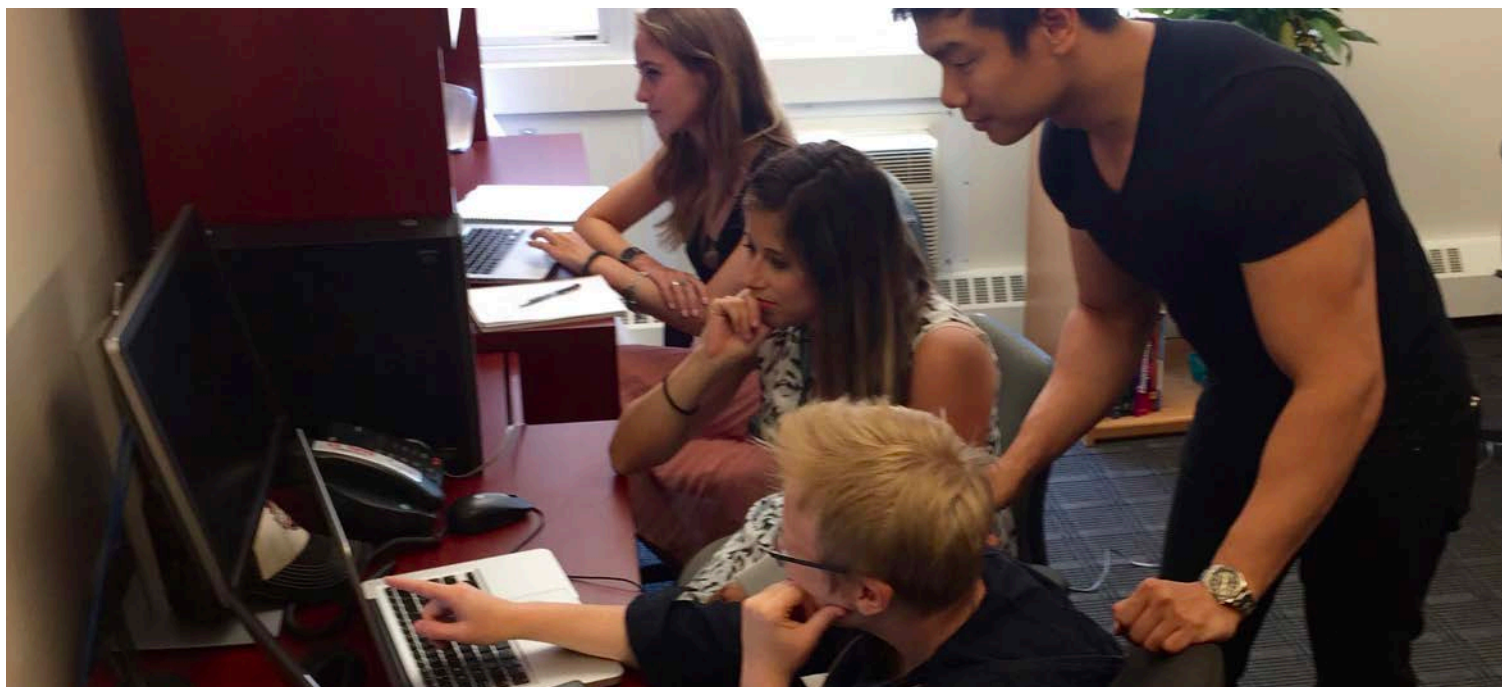
- Twelve sites established across the country (four pediatric and eight adult)
- Each site has hired their own research coordinator for conducting clinical research activities
- Clinical Research Network site coordinators are working with the Registry Working Group to support the STOP-PAIN 10+ project
- The McMaster Clinical Research Network site is collaborating with Mark Ware on a Cannabis Registry, with the hope of expanding the Registry across the province with the long-term aim of national growth



# Network Projects

During the grant application process, a number of potential projects addressing the breadth of pain research were reviewed. Twenty projects were selected from the submitted funding requests, and contracts were distributed in December 2016. Project funding for Network projects began to flow in early 2017. These projects include researchers and institutions from across the country.

Over the Network's lifespan, we aim to create broader collaboration and initiate new work arising out of the "first projects" of the Network.



## EPIDEMIOLOGICAL INVESTIGATIONS OF CHRONIC PAIN CONDITIONS AND PSYCHIATRIC DISORDERS

**Project Start Date:** August 2016

**Projected End Date:** August 2018

A series of epidemiological investigations will aim to understand the complex relationship between chronic pain conditions and psychiatric disorders. In both population-based Canadian and US samples, we will establish co-morbidity trends, mechanisms to elucidate co-occurrence, and health and disability-related implications of co-morbidities.

### **Leader(s):**

Renée El-Gabalawy, *PhD*

### **Institution(s):**

University of Manitoba

### **Other Members:**

Brian Csupak, *MD*; Eric Jacobsohn, *MD*; Gordon Asmundson, *PhD*; Jordana Sommer, *BA(Hons.)*; & Elena Bilivicus, *MSc*



## **BIOBANK OF BIOLOGICAL SAMPLES FROM CHRONIC PAIN PATIENTS FROM CANADIAN REGISTRIES AND SCREENING FOR MOLECULAR MARKERS**

**Project Start Date:** April 2016

**Projected End Date:** March 2021

Creation of a biobank of biological samples, including DNA, RNA and plasma proteins, obtained from patients in the registries of SPOR Network grant partners.

Samples will be used to identify molecular markers of the chronicity of pain conditions and their response to specific treatments.

### **Leader(s):**

Luda Diatchenko, MD, PhD

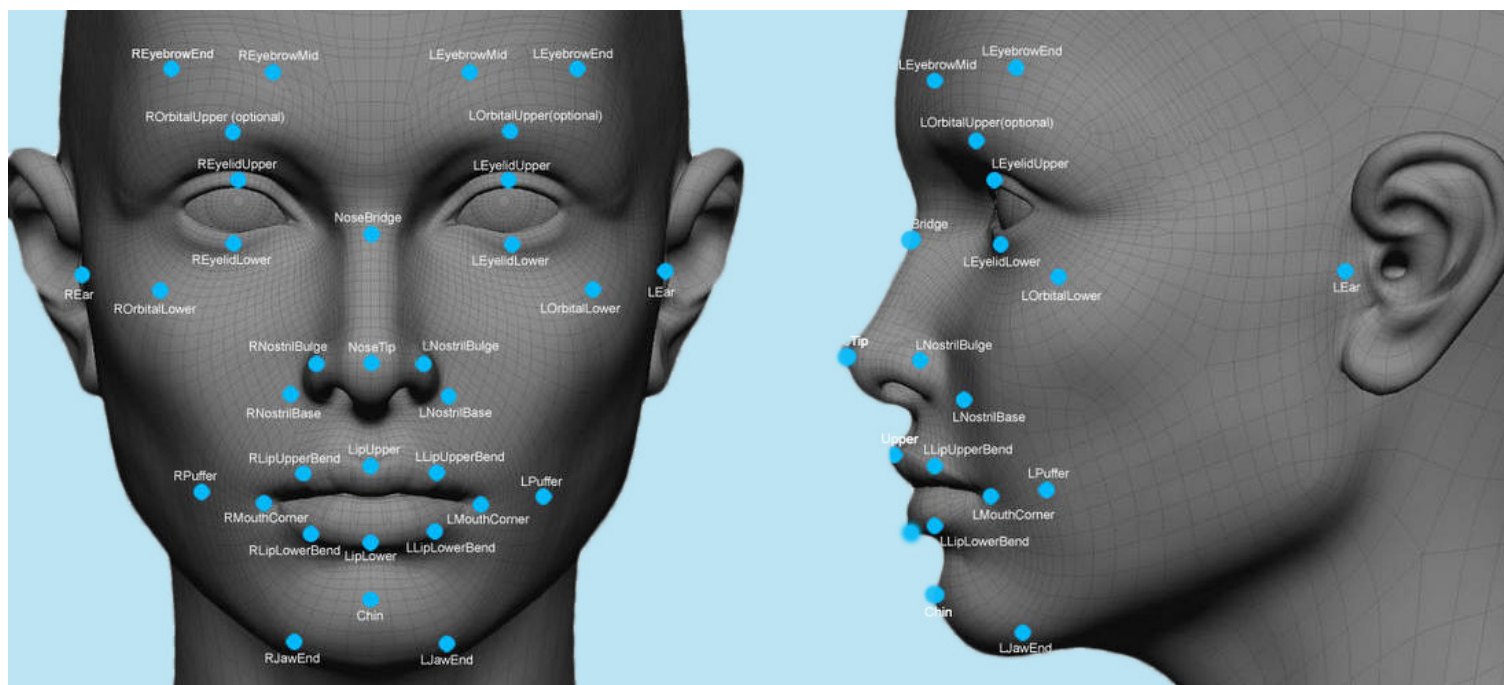
### **Institution(s):**

McGill University

### **Other Members:**

Proove Bio & Québec Pain Network





## MULTIDIMENSIONAL PAIN ASSESSMENT: VERBAL AND NONVERBAL PARAMETERS

**Project Start Date:** July 2017

**Projected End Date:** June 2022

This behavioral study will assess the application of computer-based automatic assessment of pain, expanding the application of the system to infants, children with developmental disabilities and adults with cognitive impairment. Utilizing the Facial Action Coding System, Computer Vision and Machine Learning reliably characterize video recorded facial displays without requiring time or potential for human error associated with manual coding.

### **Leader(s):**

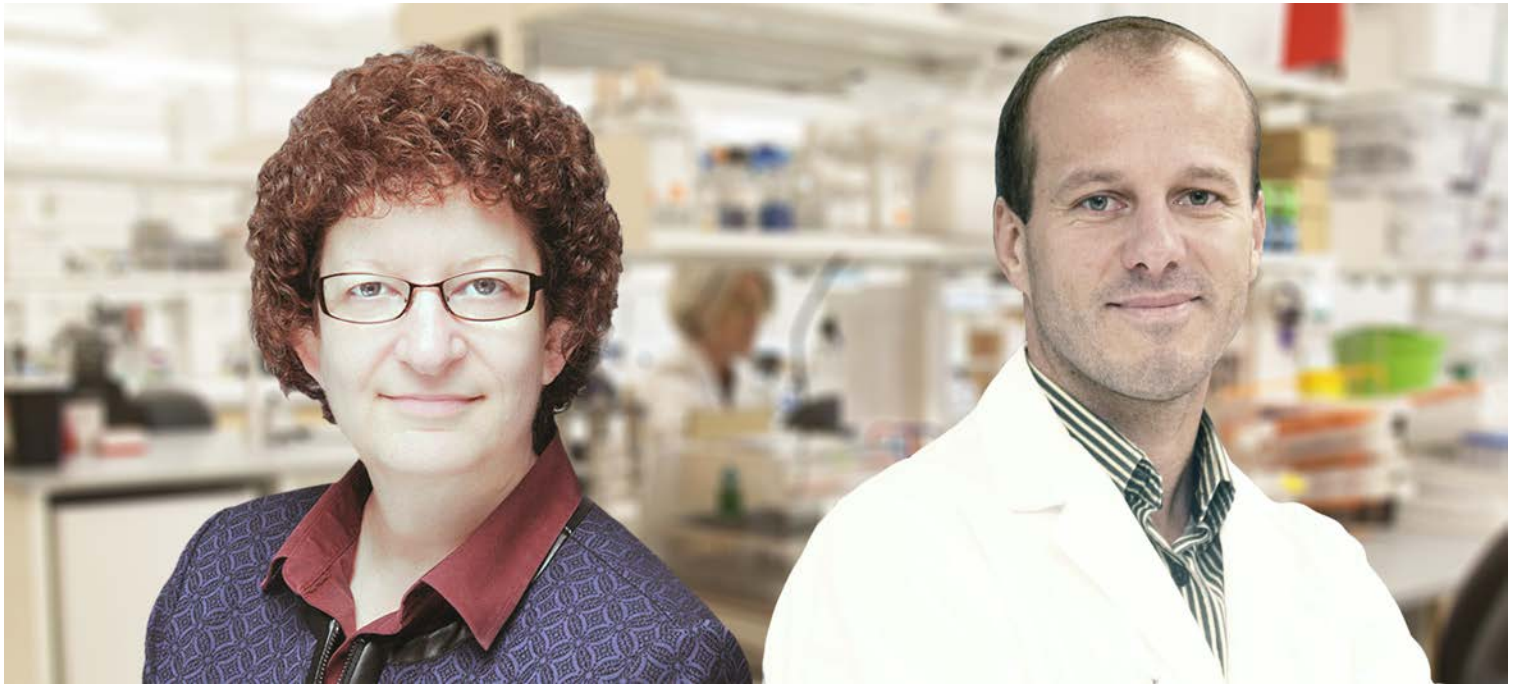
Kenneth D. Craig, PhD

### **Institution(s):**

University of British Columbia

### **Other Members:**

n/a



## **INDIVIDUAL PHENOTYPES OF CHRONIC PAIN : THE DYNAMIC PAIN CONNECTOME TOWARDS PAINOMETER DEVELOPMENT AND NEUROETHICS**

**Project Start Date:** April 2017

**Projected End Date:** March 2022

A basic study seeking to identify key indicators of the dynamic pain connectome representing individual pain sensitivities; how chronic pain changes brain structure and function, sensorimotor control (body manifestations); changes in behaviour (e.g., kinesiophobia); resilience and treatment response. A multidisciplinary approach will link pain perception with brain findings derived from fMRI and responses and functional connectivity in patients before and after treatment. A framework for neuroethics, legal and societal challenges related to brain imaging proxies of pain will also be established.

### **Leader(s):**

Karen D. Davis, *PhD* &  
Cyril Schneider, *PhD*

### **Institution(s):**

University Health Network, Université  
Laval & CHU of Québec

### **Other Members:**

Dwight Moulin, *MD*; Petra  
Schweinhardt, *MD, PhD*; & McGill  
Research Group





## MUSIC MEDICINE AS PAIN TREATMENT

**Project Start Date:** January 2016

**Projected End Date:** June 2020

An examination of the effects of a non-medical, self-administered therapy option for the management of chronic pain, i.e., Rhythmic Sensory Stimulation and Music. Research will also investigate the mechanisms underlying the use of low-frequency rhythmic sensory stimulation and music as a complementary treatment for chronic pain.

### Leader(s):

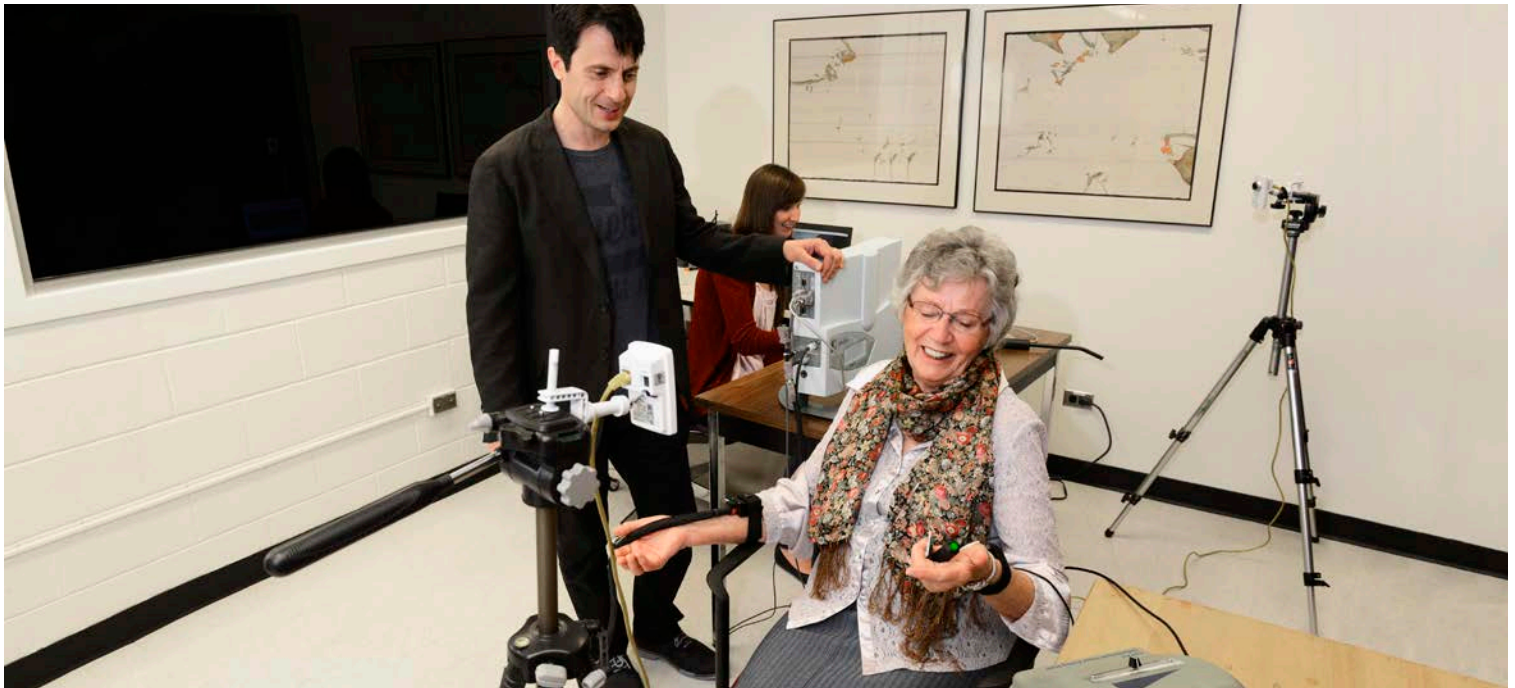
Allan Gordon, MD, FRCPC &  
Lee Bartel, PhD

### Institution(s):

Wasser Pain Management Centre; Mount Sinai Hospital; University of Toronto, Faculty of Music; Fred A Litwin and Family Centre in Genetic Medicine; & Baycrest Health Sciences Centre

### Other Members:

Larry Picard, MD; Thenille Braun Janzen, PhD; Denise Paneduro, MA; Veronica Vuong, BMus; Marilyn Galonski, RN; Leah Pink, NP; Azar Azad, MLD, PhD; Ana Andreazza, PhD; Jed Meltzer, PhD; & Hanna Faghfoury, MDCM, FRCPC



## PAIN IN OLDER ADULTS

**Project Start Date:** April 2017

**Projected End Date:** March 2022

This work focuses on three areas: (a) an examination of the cost of pain in long-term care; (b) pain cues used by observers to draw conclusions about pain in older persons; and (c) pain self-management interventions for older adults.

### Leader(s):

Thomas Hadjistavropoulos, *PhD, FCAHS*

### Institution(s):

University of Regina, University of Manitoba & University of British Columbia

### Other Members:

Lisa Lix, *BSHEc, MSc, PhD, P.Stat*;  
Harminder Guliani, *PhD*; Ying McNab,  
*BSc, MSc, PhD*; Rhonda Stopyn & Ainsley McIntyre



## THE ROLE OF PARENT MENTAL HEALTH IN PEDIATRIC CHRONIC PAIN

**Project Start Date:** April 2016

**Projected End Date:** March 2021

A multi-site, clinical research study seeking to determine the cognitive, behavioural, and biological mechanisms underlying the relationship between parental mental health issues and children's pain outcomes in a sample of youth with chronic pain.

### **Leader(s):**

Melanie Noel, PhD

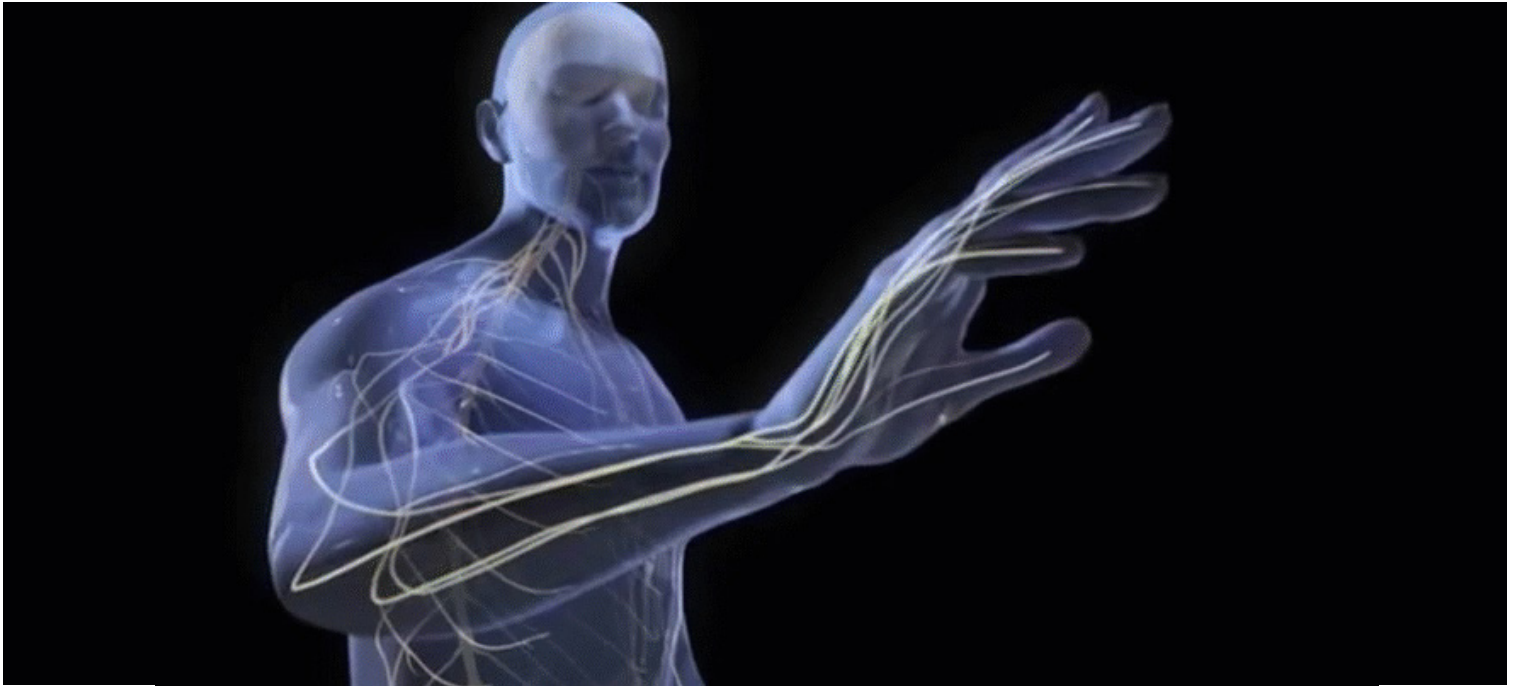
### **Institution(s):**

Alberta Children's Hospital (site lead),  
University of Calgary/Foothills Medical  
Centre & Hospital for Sick Children

### **Other Members:**

Naweed Syed, PhD; Nivez Rasic, MD;  
Jillian Vinall, PhD; Signe Bray, PhD;  
Ashley Harris, PhD; Tonya Palermo, PhD;  
Anne E. Kazak, PhD, ABPP; Tine Vervoort,  
PhD; Christopher Sears, PhD; Jennifer  
Stinson, RN-EC, PhD, CPNP; Allen Finley,  
MD, FRCPC, FAAP; Margot Latimer, RN,  
PhD; & Jill Chorney, PhD





## **STRATEGIC APPROACHES TO PERSONALIZED DIAGNOSIS AND TREATMENT IN CHRONIC PAIN**

**Project Start Date:** January 2017

**Projected End Date:** May 2022

The project seeks to develop and validate standard procedures to measure excitatory and inhibitory mechanism efficacy, and to establish these procedures across pain centres and pain clinics of the network.

The final goal is to come up with standardized values, reference charts and simple clinical tools that will help guide personalized pain treatments.

### **Leader(s):**

Serge Marchand, *PhD*; Louis Gendron, *PhD*; Philippe Sarret, *PhD*; & Nicolas Beaudet, *PhD*

### **Institution(s):**

Université de Sherbrooke, Centre de Recherche du CHUS

### **Other Members:**

Québec Pain Research Network, Pain Research Centres & Pain Clinics in Québec and Canada



## **CHRONIC PAIN IN THE EMERGENCY DEPARTMENT: UNDERSTANDING CONTRIBUTING FACTORS TO IMPROVE HEALTH CARE OUTCOMES, HEALTH CARE UTILIZATION AND PRESCRIPTION OPIOID ABUSE**

**Project Start Date:** July 2017

**Projected End Date:** June 2022

An examination of how chronic pain is handled in the Emergency Department; ascertaining the proportion of patients with chronic pain, who are frequent users of the Emergency Department, who have had access to self-management, inter-disciplinary interventions or to a pain specialist; exploring the different reasons for presentation, patient characteristics, care provided, and care expectations and access to self-management, interdisciplinary program or pain specialists; ascertaining stakeholders' expectations of how chronic pain should be managed in the Emergency Department.

### **Leader(s):**

Patricia Poulin, PhD, C.Psych; & Catherine Smyth, MD, FRCPC

### **Institution(s):**

The Ottawa Hospital Research Institute, St. Joseph's Care Group & Northern Ontario School of Medicine

### **Other Members:**

Bryan MacLeod, MD, FCFP





## THE SYSTEMATIC MERGING OF BIOLOGY, MENTAL HEALTH AND ENVIRONMENT (SYMBIOME) LONGITUDINAL DATABANKING PROJECT

**Project Start Date:** April 2016

**Projected End Date:** March 2021

The SYMBIOME databank seeks to establish a robust, rigorously-collected and maintained longitudinal acute-to-recovered or acute-to-chronic databank of biological, psychological and social indicator variables that will allow advanced exploratory and confirmatory analyses of the trajectory and causes of pain and disability following acute musculoskeletal trauma.

### **Leader(s):**

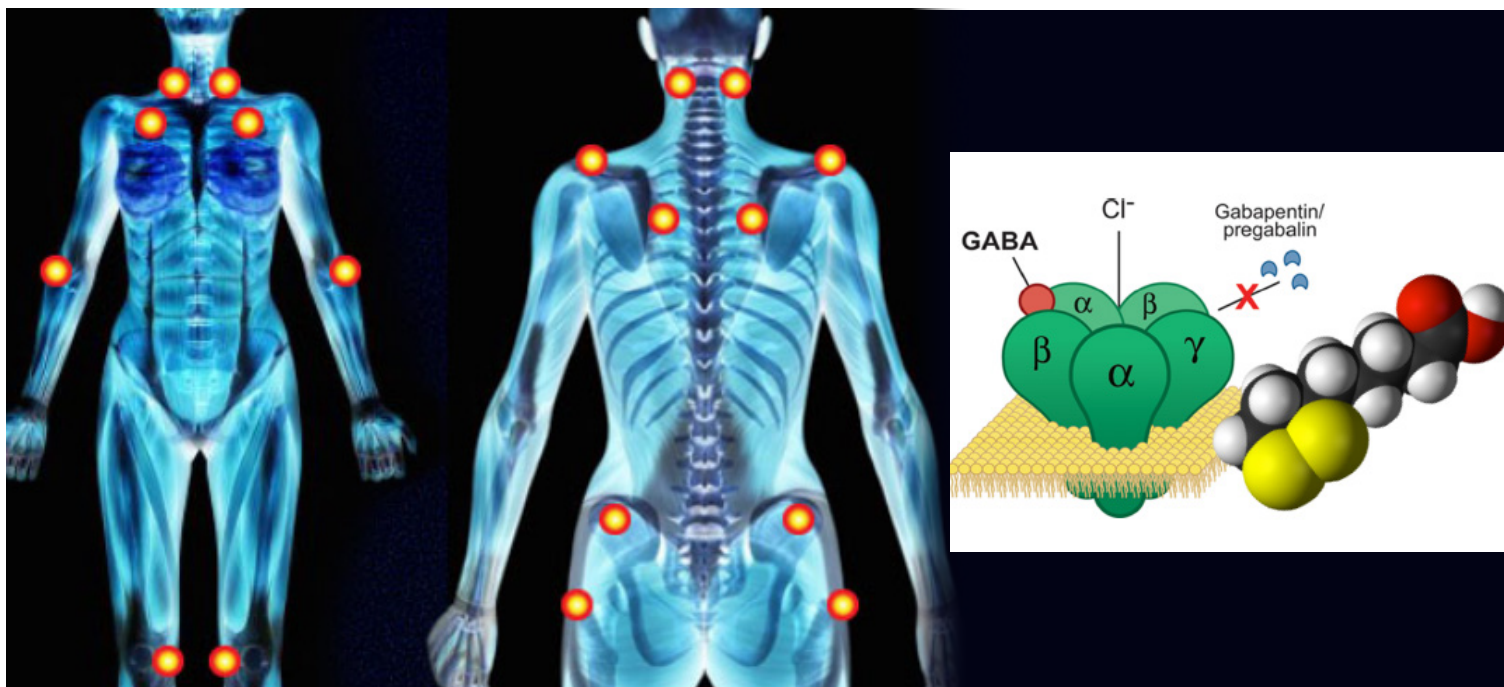
David Walton, *PT, PhD, FCAMPT*; Joy MacDermid, *PhD*; Jim Elliott, *PT, PhD*; Walter Siqueira, *DDS, PhD*; Lynn Cooper, *Brian Corneil, PhD*; Eldon Loh, *MD, FRCPC*; Gordon Good, *LLB*; Siobhan Schabrun, *PhD*; & Jordan Miller, *PhD*

### **Institution(s):**

University of Western Ontario, McMaster University, McGill University, University of British Columbia, Queen's University, Northwestern University, Western Sydney University, University of North Carolina at Chapel Hill, Canadian Pain Coalition & Gordon Good Law Offices

### **Other Members:**

Québec Pain Research Network & Pain Research Centres and Pain Clinics in Québec and Canada



## CADENCE: COMBINATION ANALGESIC DEVELOPMENT FOR ENHANCED CLINICAL EFFICACY

**Project Start Date:** August 2017

**Projected End Date:** July 2022

This study is a double-blind, double-dummy, randomized, controlled, three period crossover clinical trial comparing a combination of the anticonvulsant, pregabalin (PGB), with the non-sedating antioxidant, alpha-lipoic acid (ALA) to each monotherapy in chronic pain. Project outputs will advance knowledge about rational combination therapy for chronic pain and potentially identify a new treatment strategy with improved outcomes.

### Leader(s):

Ian Gilron, MD, FRCPC; Dongsheng Tu, PhD; Luda Diatchenko, MD, PhD; Nader Ghasemlou, PhD; Elizabeth Van DenKerkhof, RN BScN, MSc, DrPH; & Scott Duggan, MD, FRCPC

### Institution(s):

Queen's University, McGill University & University of Manitoba

### Other Members:

Ronald Holden, PhD; Roumen Milev, MD, PhD, FRCPsych, FRCPC; Alan Jackson, MD, FRCPC; & Tanveer Towheed, MD, FRCP

# ICANCOPE

Living well, despite pain



For 15-25 year olds with persistent pain

Symptom Tracking • Smart Goals • Coping Skills Toolbox • Social Community

## ICANCOPE: RANDOMIZED CONTROLLED TRIAL OF A SMARTPHONE AND WEB-BASED APPLICATION TO MANAGE PAIN IN ADOLESCENTS AND YOUNG ADULTS (AYA) WITH CHRONIC PAIN

**Project Start Date:** April 2017

**Projected End Date:** March 2022

This project seeks to evaluate effectiveness of iCanCope, the first integrated smartphone and web-based pain self-management program for 15-25 year olds with persistent pain.

### Leader(s):

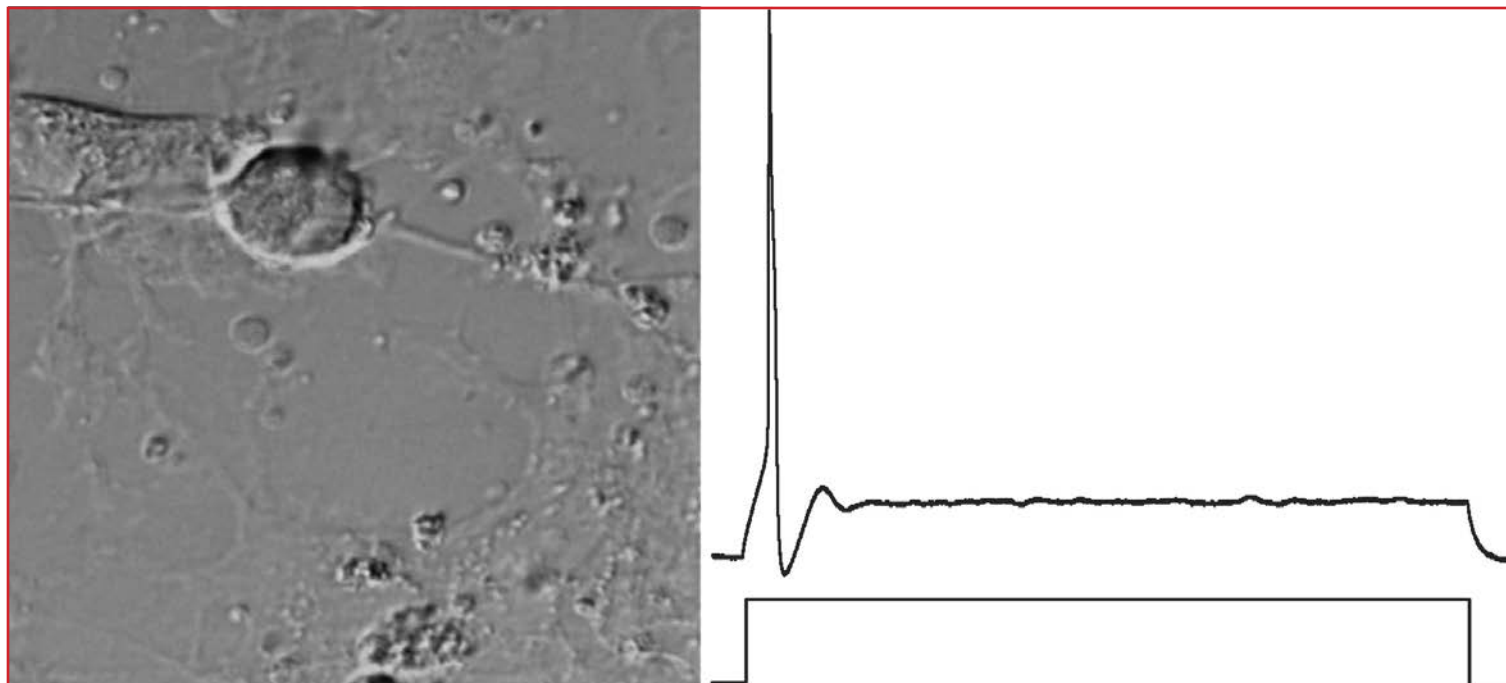
Jennifer Stinson, RN-EC, PhD, CPNP

### Institution(s):

Hospital for Sick Children (site lead),  
Centre for Global eHealth Innovation  
(University Health Network), Alberta  
Children's Hospital, Mount Sinai  
Hospital, IWK Health Centre, Queen  
Elizabeth II Health Sciences Centre,  
Alberta Health Services, Stollery  
Children's Hospital

### Other Members:

Chitra Lalloo, PhD; Fiona Campbell,  
MD, FRCA; Allan Gordon, MD, FRCPC; Jill  
Chorney, PhD, RPsych; Karim Mukhida,  
MD, PhD, FRCPC; Mark Simmonds,  
MD, FRCPC; Saifee Rashid, MD, FRCPC;  
Lindsay Jibb, RN, PhD; Bruce Dick, PhD;  
Paula Forgeron, RN, PhD; Pablo Ingelmo,  
MD; Lori Montgomery, MD, CCFP;  
Danielle Ruskin, PhD, C.Psych; Susan  
Tupper, BScPT, PhD; Charles Victor, MSc,  
P.Stat; Mark Ware, MD, MRCP; Tonya  
Palermo, PhD; & Krista Baerg, MD, FRCPC



## IMPROVING PERSONALIZED MEDICINE THROUGH DISCOVERY OF PAIN MECHANISMS USING PATIENT-DERIVED NEURONS

**Project Start Date:** September 2016

**Projected End Date:** September 2021

A basic research study that uses patient-derived sensory neurons to compare cellular changes in leukemia patients who are susceptible or resistant to chemotherapy-induced neuropathy. The long-term results are intended to help develop patient-specific treatments against neuropathic pain.

### **Leader(s):**

Steven A. Prescott, MD, PhD; & Michael W. Salter, MD, PhD

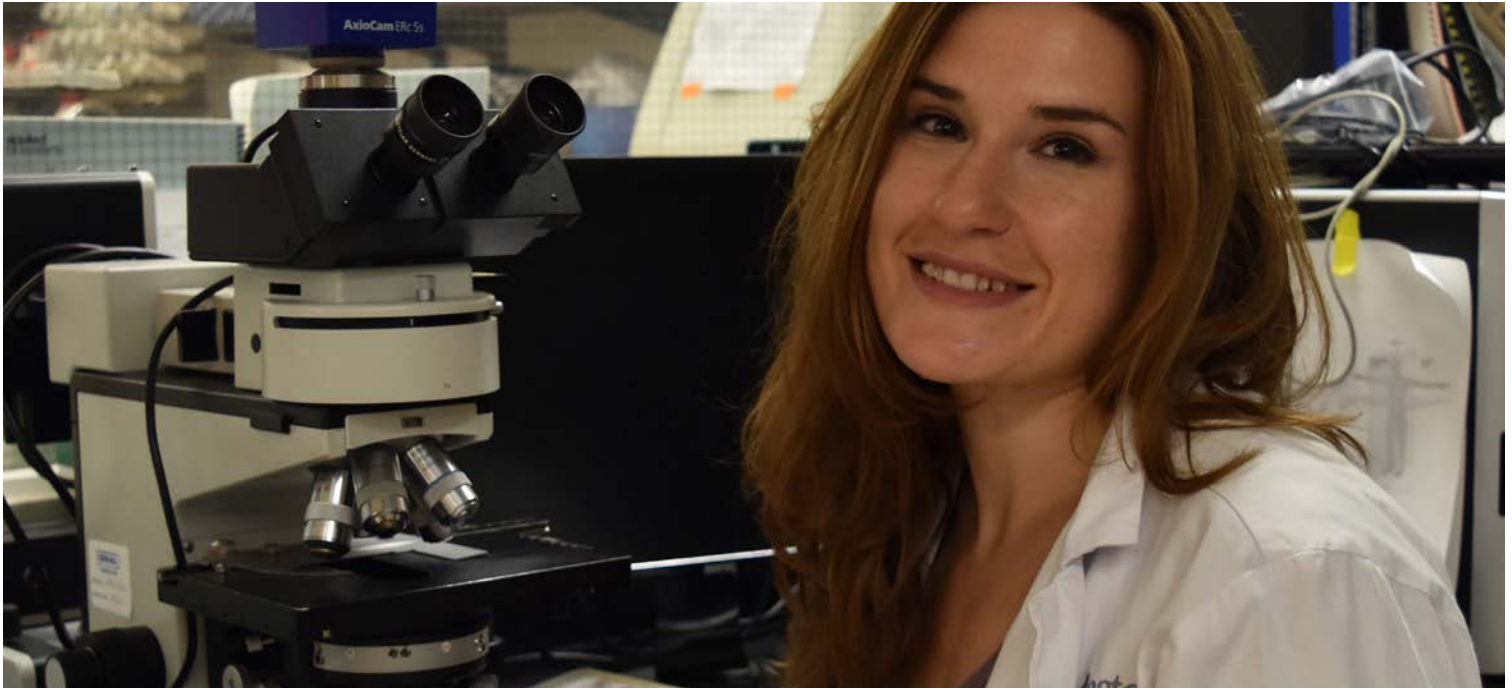
### **Institution(s):**

The Hospital for Sick Children

### **Other Members:**

James Ellis, PhD; & James Whitlock, MD





## TARGETED PAIN THERAPIES FOR CANCER PATIENTS

**Project Start Date:** April 2017

**Projected End Date:** March 2022

This study begins as a retrospective study using biobank samples to investigate biomarkers focused on breast, prostate and lung cancers that have metastasized to the bone and cause severe chronic pain. A prospective study biomarker analysis will be investigated in baseline and cancer patients with and without cancer pain, ultimately resulting in validating biomarkers before and after treatment with novel agents. This data is critical to advance future therapeutics for cancer-induced pain.

### Leader(s):

Gurmit Singh, *PhD* & Jan Huizinga, *PhD*

### Institution(s):

McMaster University

### Other Members:

Murray Webb, *PhD*; John Valliant, *PhD*; & Paul Schaffer, *PhD*





## CIRCADIAN CONTROL OF CHRONIC PAIN

**Project Start Date:** April 2017

**Projected End Date:** March 2022

This study seeks to identify novel mechanisms underlying chronic pain that are affected by circadian rhythms. By better understanding the daily fluctuations that occur in the intensity of pain reported by chronic pain sufferers, we hope to identify molecular cues that might be responsible for the generation of chronic pain. This work will help identify potential new therapeutic targets, and inform standard of care through the use of chronotherapy.

### **Leader(s):**

Nader Ghasemlou, *PhD*; & Ian Gilron, *MD*

### **Institution(s):**

Queen's University

### **Other Members:**

Luda Diatchenko, *PhD*; Van DenKerkhof, *PhD*; Scott Duggan, *MD*; & Qingling Duan, *PhD*



## **ABORIGINAL CHILDREN'S HURT & HEALING INITIATIVE NATIONAL: GATHERING AND SHARING KNOWLEDGE TO IMPROVE ABORIGINAL CHILDREN'S PAIN ASSESSMENT AND MANAGEMENT**

**Project Start Date:** January 2017

**Projected End Date:** December 2021

This project expands the Aboriginal Children's Hurt & Healing (ACHH) Initiative which has previously engaged four Atlantic Canadian First Nations communities (3 Mi'kmaq, 1 Maliseet). The ACHH National expansion will encompass six more communities, including an additional four First Nations (Alberta, BC, Ontario and Quebec), one Inuit (Labrador) and one Métis (Manitoba) community. The ACHH Initiative uses a Two-Eyed Seeing philosophy and was created out of a need to better understand the issue of chronic pain in Aboriginal pediatric populations. Aboriginal children experience higher rates of painful conditions including, but not limited to, dental pain, ear pain and headaches and are less likely to have their pain adequately treated. The project embraces community engagement by including Elders, Indigenous trainees, community leaders and clinicians at all levels.

### **Leader(s):**

Margot Latimer, *RN, PhD*; Sharon Rudderham, *BA*; & John R. Sylliboy, *BA*

### **Institution(s):**

IVK Health Centre, Centre for Pediatric Pain Research, Eskasoni Health Centre & Dalhousie University

### **Other Members:**

Allen Finley, *MD, FRCPC, FAAP*; Katherine Harman, *PhD*; Christopher Mushquash, *PhD, C.Psych*; Kara Paul, *BSc*; Jill Chorney, *PhD, RPsych*; Daphne Hutt-MacLeod, *MA*; & Lisa Perley-Dutcher, *RN, BN, MN*



## PREDICTION OF CHRONIC PAIN AFTER UPPER EXTREMITY FRACTURE OR ARTHROPLASTY

**Project Start Date:** April 2017

**Projected End Date:** December 2019

This project will study men and women who had no prior pain, and then broke their wrist, or who chose to have a joint replacement to relieve chronic pain in one of their arm joints. It will determine whether men and women are different in how they report acute pain, the medications they use and the factors that predict long-term pain problems. This project will also investigate potential reasons for the differences such as hormones, pain processing, health problems and social roles. We will determine if being more masculine/feminine affects pain, if it is related to stress hormones, or to how clinicians perceive your pain.

### Leader(s):

Joy MacDermid, *PT, PhD*; & David Walton, *PT, PhD*

### Institution(s):

University of Western Ontario, Hand and Upper Limb Centre

### Other Members:

Ruby Grewal, *MD, FRCSC*; Ken Faber, *MD, MHPE, FRCSC*; & George Athwal, *MD, FRCSC*



## **CANADIAN SURVEILLANCE STUDY OF COMPLEX REGIONAL PAIN SYNDROME IN CHILDREN AND YOUTH**

**Project Start Date:** July 2017

**Projected End Date:** December 2019

A population study exploring Complex Regional Pain Syndrome (CRPS) cases, in children and youth, presenting to paediatricians and pediatric chronic pain centres across Canada. CRPS is a chronic severe pain condition that involves peripheral, central and autonomic nervous system and immune system mechanisms, previously referred to as regional sympathetic dystrophy. With a proposed surveillance duration of two years, and utilizing the established methodology of the Canadian Paediatric Surveillance Program, research will provide important incidence data and describe pediatric case characteristics. This foundational data will promote early recognition and treatment of CRPS in childhood and adolescence, as well as inform the education of pain health professionals both nationally and internationally.

### **Leader(s):**

Krista Baerg, MD, FRCPC; Susan Tupper, BScPT, PhD; & Allen Finley, MD, FRCPC

### **Institution(s):**

University of Saskatchewan,  
Saskatoon Health Region & Dalhousie  
University

### **Other Members:**

Canadian Pediatric Pain Clinics &  
Canadian Pediatric Surveillance  
Program





## **RANDOMIZED CONTROL TRIALS OF NEUROMODULATION TO TREAT CHRONIC LOW BACK PAIN AND COMPLEX REGIONAL PAIN SYNDROME**

**Project Start Date:** April 2017

**Projected End Date:** March 2022

A randomized control trial of neuromodulation, aiming to collect evidence-based data on noninvasive brain stimulation and noninvasive peripheral stimulation after-effects in chronic lower back pain and complex regional pain syndrome and detecting factors predictive of success (personalized health care).

### **Leader(s):**

Cyril Schneider, PhD

### **Institution(s):**

Université Laval

### **Other Members:**

Center for Excellence of Chronic Pain Management, Province of Québec; pain centres across Canada; and all Canadian pain researchers with neurostimulation and MRI





## **PROTEOMIC ANALYSIS OF CHRONIC PAIN TO IDENTIFY NEW THERAPEUTIC TARGETS AND BIOMARKERS**

**Project Start Date:** January 2017

**Projected End Date:** December 2022

Understanding the molecular players that control chronic pain is critical to the development of new therapeutics and the proper classification of pain states. Our project will characterize the proteomic profile of patients with spinal cord injury pain, already screened as part of another study funded by the Rick Hansen Institute, to identify potential new biomarkers of pain. These results will then be validated in other chronic states, helping us better understand the molecular underpinnings of pain.

### **Leader(s):**

Nader Ghasemlou, *PhD*; Luda Diatchenko, *PhD*; & Ian Gilron, *MD*

### **Institution(s):**

Queen's University

### **Other Members:**

Scott Duggan, *MD*; Elizabeth Van DenKerkhof, *PhD*; Qingling Duan, *PhD*; & Brian Kwon, *MD*





**In This Photo:** Chronic Pain Network members Dr. Margot Latimer, Sharon Rudderham and John R. Silliboy pose with Minister of Health Jane Philpott at the Indigenous Health Research Caucus on Parliament Hill





**In This Photo:** Dr. Ian Gilron provides updates on the Clinical Research Network at the 2017 Canadian Pain Society's Annual Scientific Meeting.

# Chronic Pain Network Financial Report

## for the Year 2016-17

The Chronic Pain Network is a five-year CIHR SPOR Chronic Disease Network that began on January 1, 2016. McMaster University is the host institution for the administration of the Network, and holds the CIHR agreement. An inter-institutional or partner agreement was executed between McMaster University and all collaborating institutions this year, with the final signature collected in June 2017.

Funding for the Network is approximately \$35 million, as indicated in the table below. This is comprised of funding from CIHR in the amount of \$12.5 million over a five year period, and \$23 million in matching cash and in-kind contributions from Network partners and collaborators.

NETWORK YEAR	DATES	CIHR	MATCHING CASH	MATCHING IN-KIND
Year One	January 1 2016 - March 31, 2017	\$3,366,321	\$3,925,480	\$1,322,369.00
Year Two	April 1, 2017 - March 31, 2018	\$2,578,966	\$3,493,193	\$1,487,923.00
Year Three	April 1, 2018 - March 31, 2019	\$2,550,203	\$3,235,986	\$1,335,923.00
Year Four	April 1, 2019 - March 31, 2020	\$2,275,035	\$3,125,090	\$1,137,590.00
Year Five	April 1, 2020 - March 31 2021	\$1,729,475	\$3,125,090	\$1,131,090.00
		\$12,500,000	\$16,904,839	\$6,414,895.00

## Status of Funding

Challenges in finalizing the interinstitutional agreement for 26 institutes caused a delay in the execution of our Partner Agreements, which ultimately held up funding for 22 of our funded research projects, in addition to committee funds. We have been able to provide payment retroactively for activities that were able to use alternate funding for the Year One period. Fortunately, CIHR allows unspent funds to be carried forward to the following year, with budget approval year by year.

Actual expenditures for the January 2016 - March 2017 period include:

- Recruitment of the CPN Coordination Centre Staff (Managing Director, Communications Coordinator and Administrative Assistant)
- Consultant for Network Administration and organization
- Principal Applicant Meeting
- Attendance at SPOR meetings
- Website, logo, supplies, teleconferencing/video platforms
- Committee funds (Training and Mentoring, Patient Engagement)

Shortly after the March 31, 2017 deadline we were able to transfer project funds and Clinical Research Network funds for activities that occurred in Year One, these will serve as actual expenditures for the Year Two annual reporting and CIHR financial reporting.



# Our Team



Dr. Krista Baerg  
Co-Applicant



Dr. Nicolas Beaudet  
Co-Applicant



Billie Jo Bogden  
Patient Partner



Mary Brachaniec  
Patient Partner



Dr. Norm Buckley  
Nominated Principal Applicant



Carolyn Bulmer  
Patient Partner



Dr. Jason Busse  
Co-Applicant



Dr. Marion Choinière  
Principal Applicant



Lynn Cooper  
Patient Partner



Dr. Kenneth Craig  
Co-Applicant



Dr. Karen Davis  
Principal Applicant



Chris DeBow  
Patient Partner



Dr. PJ Devereaux  
Co-Applicant



Dr. Luda Diatchenko  
Primary Applicant



Mario Di Carlo  
Patient Partner



Dr. Renée El-Gabalawy  
Co-Applicant



Kathleen Eubanks  
Patient Partner



Dr. Allen Finley  
Primary Applicant



Dr. Louis Gendron  
Co-Applicant



Dr. Nader Ghasemlou  
Co-Applicant



Dr. Ian Gilron  
Primary Applicant



Dr. Allan Gordon  
Co-Applicant



Janet Gunderson  
Patient Partner



Dr. Thomas Hadjistavropoulos  
Co-Applicant



Dr. Richard Hovey  
Patient Partner



Maria Hudspeth  
Principal Applicant



Dr. Alfonso Iori  
Principal Applicant



Dr. Keith Jarvi  
Co-Applicant



Isabel Jordan  
Patient Partner



Jacques Laliberté  
Patient Partner



Therese Lane  
Patient Partner



Dr. Margot Latimer  
Principal Applicant



Rebecca Lee  
Patient Partner



Dr. Mike McGillon  
Co-Applicant



Dr. Joy MacDermid  
Co-Applicant



Curtis May  
Patient Partner



Dr. Dwight Moulin  
Co-Applicant



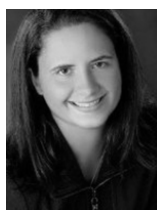
Dr. Melanie Noel  
Co-Applicant



Carley Ouellette  
Patient Partner



Stéphanie Perrault  
Patient Partner



Dr. Patricia Poulin  
Principal Applicant



Dr. Steve Prescott  
Co-Applicant



Dr. Mike Salter  
Co-Applicant



Cyndi Sand-Eveland  
Patient Partner



Dr. Cyril Schneider  
Primary Applicant



Dr. Barry Sessle  
Co-Applicant



Dr. Gurmit Singh  
Co-Applicant



Lesley Singer  
Patient Partner



Karen Smith  
Patient Partner



Dr. Bonnie Stevens  
Principal Applicant



Dr. Jennifer Stinson  
Principal Applicant



Janice Sumpton  
Patient Partner



Dr. Karine Toupin-April  
Co-Applicant



Dr. Dave Walton  
Co-Applicant



Dr. Mark Ware  
Co-Applicant



Dr. Judy Watt-Watson  
Co-Applicant



Marc White  
Patient Partner



Linda Wilhelm  
Patient Partner

The Chronic Pain Network includes patients, families, advisory groups, healthcare providers, scientists, clinical scientists, clinicians, leaders of provincial and national patient advocacy groups, foundations and support networks.

Alberta Children's Hospital Research Institute	McGill University, Alan Edwards Pain Management
University of Alberta, Anesthesiology & Pain Medicine	Michael G. DeGroote Institute for Pain Research and Care
The Arthritis Society	Université de Montreal, Department of Anesthesiology
Association Québécoise de la Douleur Chronique	Mount Sinai Hospital, Wasser Pain Centre
Canadian Anesthesiologists Society	Multiple Sclerosis Society of Canada
Canadian Pain Society	The Ottawa Hospital Research Institute
Centre de recherche du CHUS	Pain BC
Centre de recherché du Centre hospitalier de l'Université de Montreal	Proove Biosciences, Inc.
Children's Hospital of Eastern Ontario Research Institute Inc.	Purdue Pharma
Children's Hospital Foundation of Saskatchewan	Quebec Pain Research Network
Dalhousie University, Department of Anesthesia	Queen's University
Eli Lilly Canada Inc.	University of British Columbia, Anesthesiology
GeneYouIn Inc.	University of Regina
Hamilton Health Sciences	University of Saskatchewan, College of Medicine
Hamilton Information Research Unit, McMaster University	Saskatchewan Health Research Foundation
Hospital for Sick Children (SickKids) Research Institute	Université de Sherbrooke, Faculty of Medicine and Health Sciences
Hotel Dieu Chronic Pain Clinic, Queen's University	University of Toronto Centre for the Study of Pain
The Improving the Lives of Children with Chronic Pain	University of Toronto, Faculty of Music
Charitable Foundation (ILC)	Western University, Department of Physical Therapy
Laval Université, Faculty of Medicine	University Health Network Toronto
University of Manitoba, Department of Anesthesia	
McGill University	



# CIHR IRSC

Canadian Institutes of Health Research    Instituts de recherche en santé du Canada

Strategy for Patient-Oriented Research

## SPOR

Putting Patients First 

The Chronic Pain Network has been made possible through funding by the Canadian Institutes of Health Research and the Strategy for Patient Oriented Research.

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SEE NETWORK NEWS AS IT HAPPENS



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# CPN | RDC

CHRONIC PAIN NETWORK

RÉSEAU DE DOULEUR CHRONIQUE

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