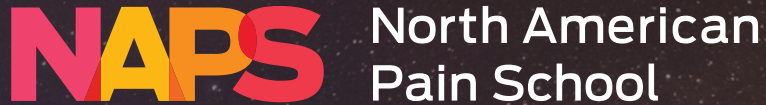


*QPRN presents:*



*An Educational Initiative of IASP and ACTION*

**Where Does it Hurt and Why: Peripheral  
and Central Contributions to Pain  
Throughout the Body**

**Program**

**June 25 – June 29, 2017**

*Chateau Montebello  
Montebello, QC, Canada*

[www.northamericanpainschool.com](http://www.northamericanpainschool.com)



**#NAPainSchool**

## Executive Committee



**Prof. Jeffrey S. Mogil, Ph.D.**  
**(Director)**

E.P. Taylor Professor of Pain Studies / Canada Research Chair in the Genetics of Pain (Tier 1) / Dept. of Psychology / Director, Alan Edwards Centre for Research on Pain, McGill University



**Prof. Christine T. Chambers, Ph.D. (Assistant Director)**

Canada Research Chair in Children's Pain (Tier 1) / Prof., Depts. of Pediatrics and Psychology & Neuroscience Dalhousie University and IWK Health Centre



**Prof. Roger B. Fillingim, Ph.D.**

Distinguished Professor, University of Florida College of Dentistry / Director, UF Pain Research and Intervention Center of Excellence



**Prof. Nicolas Beaudet, Ph.D.**

Assistant Director, Quebec Pain Research Network / Adjunct Professor, Dept. of Anesthesiology, Faculty of Medicine and Health Sciences, Université de Sherbrooke



**Prof. Anne-Louise Oaklander, M.D., Ph.D.**

Associate Professor of Neurology Director, Nerve Unit Harvard Medical School and Massachusetts General Hospital



**Prof. Petra Schweinhardt, M.D., Ph.D.**

Adjunct Professor, Faculty of Dentistry and Alan Edwards Centre for Research on Pain, McGill University / Senior Scientist, Interdisciplinary Spinal Research, Department of Chiropractic Medicine, University of Zurich



**Prof. Michael S. Gold, Ph.D.**

Professor, Dept. of Anesthesiology University of Pittsburgh School of Medicine

## Coordination



**Dr. Alexandre J. Parent, Ph.D.**

Head coordinator, Quebec Pain Research Network / Coordinator, North American Pain School

## Vision of NAPS

The North American Pain School (NAPS) will bring together leading experts in the fields of pain research and management to provide a unique educational and networking experience for the next generation of basic science and clinical pain researchers. We offer opportunities for scientific education, professional development, and connections with peers in a setting far removed from the lab and steeped in the character and culture of Quebec.

Led by an Executive Committee of permanent faculty, NAPS will take place in the first weeks of summer to take full advantage of all that Quebec has to offer—from the Festival International de Jazz de Montreal (June 28-July 8, 2017) to nearby wilderness activities. The venue for NAPS will facilitate lectures (by both faculty and students) as well as intimate breakout conversations and offer an array of recreational opportunities.

Each year's program will have a different theme, and will bring together approximately 30 trainees with six dynamic, internationally recognized pain investigators from around the world and NAPS permanent faculty for an intensive four-day workshop.

# Director's Message: Overview of the 2017 North American Pain School

**Dear Colleagues,**

Welcome to NAPS! For our second installment, we have chosen the theme “Where Does it Hurt and Why: Peripheral and Central Contributions to Pain Throughout the Body”. Every NAPS is designed to be multidisciplinary, and to focus on career development as well as science, but we try to pick a theme that is topical and relevant to guide us in our faculty invitations. This year's theme can be interpreted in a few ways. Does the perception or biological processing of pain depend on where in the body it's located? Is all pain qualitatively similar, or is there something fundamentally different about pain above the neck, or deep below the skin? What are the role of psychosocial factors acting at the highest levels of the neuraxis? Although everyone now agrees that chronic pain sufferers have aberrant sensory processing both in the periphery and the central nervous system, the debate continues to rage as to where the fundamental pathology lies and/or where treatments (both pharmacological and non pharmacological) ought to be focused. These topics and others will be covered by our accomplished and exciting visiting faculty, who will be giving talks and participating in our workshops. New additions to NAPS this year include the incorporation of patients with pain into the program, and new workshops on preclinical pain measurement, job negotiation skills and clinical interviewing/diagnosis. Back from last year are student talks, workshops on presentation skills, mentoring, psychophysical testing and knowledge translation, and the student debates. And of course the times when the true learning occurs, over meals, bonfires, the sugar shack, and rafting. I and the rest of the Executive Committee are beyond excited to meet and learn with a new cohort of pain's best-and-brightest. See you in June!



Jeffrey S. Mogil, Ph.D.  
Director, North American Pain School

## Visiting Faculty



### **Prof. Rami Burstein, Ph.D.**

- Professor, Dept. of Anesthesia, Beth Israel Deaconess Medical Center / Harvard University
- John Hedley-Whyte Professor of Anaesthesia / Harvard Medical School



### **Prof. Jennifer A. Haythornthwaite, Ph.D.**

- Professor, Dept. of Psychiatry & Behavioral Sciences, Medical School / Johns Hopkins University
- Director of the Center for Mind-Body Research / Johns Hopkins University



### **Prof. Daniel Clauw, M.D.**

- Professor, Dept. of Anesthesiology, Medical School / University of Michigan
- Director of the Chronic Pain and Fatigue Research Center / University of Michigan



### **Prof. Anne-Marie Malfait, M.D., Ph.D.**

- Professor, Dept. of Medicine (Rheumatology), Rush University Medical Center
- Director of the Laboratory for Translational Research in Osteoarthritis / Rush University Medical Center



### **John T. Farrar, M.D., Ph.D.**

- Professor, Depts. of Epidemiology, Neurology, and Anesthesia / University of Pennsylvania
- Senior Scholar, Center for Clinical Epidemiology and Biostatistics / University of Pennsylvania



### **Prof. Martin Schmelz, M.D.**

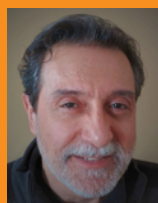
- Professor, Dept. of Anesthesiology, University of Heidelberg
- Group leader of the Interdisciplinary Center for Neurosciences / University of Heidelberg

## Patient Representatives



### **Ms. Stéphanie Perreault**

Published Author and former Policy Advisor for the Government of Canada



### **Mr. Mario Di Carlo**

Co-Chair, Patient Partnership / Chronic Pain Network





# NAPSters



## **Mark Bicket\***

@markbicket

Johns Hopkins University, USA

Supervisor: Dr. Christopher Wu

"Who Knew Patients On Opioids Before Surgery Use More Opioids After Surgery?"



## **Shana Burrowes\***

@ShanaABB

University of Maryland, Baltimore, USA

Supervisor: Dr. David Seminowicz

"I Watched Dr. Strange And Realized Marvel May Have Scooped Me On My Thesis Project....At Least I Have Solid Reference Material."



## **Dara Bree**

@DaraBree1

Harvard University, USA

Supervisor: Dr. Dan Levy

"Getting Hit In The Head Repeatedly Is Probably Not The Best Thing."



## **Chen Xiao Chen**

@HelenChenChen

Indiana University, USA

Supervisor: Dr. Janet Carpenter

"Why Some Women Have Worse Menstrual Pain Than Others?"



## **Rebecca Brouillette**

@reb\_brouillette

Université de Sherbrooke, Canada

Supervisor: Dr. Philippe Sarret

"When Targeting GPCR Receptors In Order To Relieve Pain, As In Life, You Can Gain Valuable Information By Focusing On The Inside, Instead Of Just What's On The Outer Surface."



## **Patrick Grenier**

@PatrickGGrenier

Queen's University, Canada

Supervisor: Dr. Mary C. Olmstead

"Paradoxical Pharmacology Of Ultralow Dose Receptor Antagonists In Chronic Pain And Opioid Tolerance."

*\*PRF-NAPS correspondents*



**Jane Hartung**

@janehartung  
University of Pittsburgh, USA  
Supervisor: Dr. Michael Gold  
“Post-Traumatic Headache--Is It  
Stressing Out The Field Mice AND  
Bopping Them On The Head?”



**Andrew (Junseok) Kim**

@JunseokAKim  
Krembil Research Institute, Canada  
Supervisor: Dr. Karen Davis  
“Pain Makes Your Brain Less Groovy.”



**Peter (Shih Ping) Hung**

@ShihPingHung  
Krembil Research Institute, Canada  
Supervisor: Dr. Mojgan Hodaie  
“To Cut Or Not To Cut: Can  
Computers Teach Us Which Facial  
Pain Patients Do Well Surgically?”



**Michael J. Lacagnina\***

@MJLacagnina  
University of Texas, USA  
Supervisor: Dr. Peter M. Grace  
“How Immune Cells In Your Brain May Be  
Involved In Pain: The Story Of Gently Poking  
Rats With Sticks.”



**Harriet I. Kemp\***

@DrHarrietKemp  
Imperial College London, United  
Kingdom  
Supervisor: Dr. Andrew Rice  
“HIV: A Whole World Of Pain For  
A Whole Host Of Reasons.”



**Sarah R. Martin**

@sarahraemartin  
University of California, Los Angeles, USA  
Supervisor: Dr. Lonnie Zeltzer  
“Helping Teens With SCD Turn Down The  
Pain Signals In Their Brain Because The  
Music Sure As Hell Isn't Getting Any Softer.”





### **Stacy McAllister**

@StacyMcAllist13

Stanford University, USA

Supervisor: Dr. Eric Gross

"Working To End The 1 In 10 Women With Endometriosis-Associated Pain."



### **Somayyeh Mohammadi**

@smhmohammadi

IWK Health Centre, Canada

Supervisor: Dr. Christine Chambers

"Two Signs That You Are In Trouble: 1. Being A Kid & 2. Having A Parent With Chronic Pain."



### **Élora Midavaine**

@EloraMidavaine

Université de Sherbrooke, Canada

Supervisor: Dr. Philippe Sarret

"Nanoparticles As Trojan Horses Against Cancer Pain."



### **Beatriz Monteiro**

Université de Montréal, Canada

Supervisor: Dr. Éric Troncy

"Animals And Humans Hurt Quite Similarly. How Does It Feel?"



### **Megan Marie Miller**

@megmarie\_miller

Indiana University - Purdue University in Indianapolis, USA

Supervisor: Dr. Adam T. Hirsh

"Life Isn't Fair, It's Just Fairer Than Death, That's All."



### **Sarah Najjar**

@snajjarian

University of Pittsburgh, USA

Supervisor: Dr. Kathryn Albers

"Listen To Your Gut, But Neurons Might Not Be Giving You The Whole Story."



### **Ashley M. Reynolds**

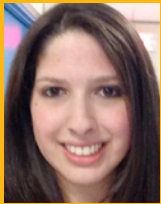
@AshleyMCowie

Medical College of Wisconsin, USA

Supervisor: Dr. Cheryl Stucky

"Who Says CGARS Are Bad? They Help Alleviate Neuropathic Pain."

*\*PRF-NAPS correspondents*



### **Sarah Rosen**

McGill University, Canada  
Supervisor: Dr. Jeffrey Mogil  
“If You Are A Female Who Suffers From Chronic Pain, Get Pregnant. If You Are A Male, Take Morphine. Don’t Try It The Other Way Around.”



### **Sonia Sharma**

@soniasha18  
University at Buffalo, USA  
Supervisor: Dr. Richard Ohrbach  
“Back To The Future: When Paradoxical Elements Of Time Obscure Simple Causal Effects.”



### **Brittany Rosenbloom**

@BNRosenblm  
York University, Canada  
Supervisor: Dr. Joel Katz  
“Why Some Children Develop Chronic Pain After Surgery And Others Don’t: Does In-Hospital Physical Activity Matter?”



### **Ester Solé Pijuan**

@estersop  
Universitat Rovira i Virgili, Spain  
Supervisor: Dr. Jordi Miró  
“The Management Of Pediatric Pain In Spain: How Do Health Care Professionals Deal With It?”



### **Jessica Ross\***

@JRossNeuro  
University of Cincinnati, USA  
Supervisor: Dr. Michael P. Jankowski  
“Boy And Girl Mice Both Hurt, But Become Sensitive In Different Ways.”



### **Delfien Syx**

@DelfienSyx  
Ghent University, Belgium  
Supervisor: Dr. Anne-Marie Malfait  
“What Causes Chronic Pain In The Connective Tissue Disorder Ehlers-Danlos Syndrome?”



**Ellen Terry**

@Ellen\_Terry1

University of Florida, USA

Supervisor: Dr. Roger Fillingim

"Neural Mechanisms Underlying  
Psychosocial Contributions To Ethnic  
Differences In Pain"



**Lincoln Tracy\***

@lincolntracy

Monash University, Australia

Supervisor: Dr. Melita Giummarra

"Warning People About Pain Makes Them  
Anxious, Giving Them Oxytocin Selectively  
Enhances Arousal And Sensitivity To Pain."



**Calia Torres**

@CaliaTorres

The University of Alabama, USA

Supervisor: Dr. Beverly E. Thorn

"Train Your Brain to Close the Pain  
Gate"



**Robert Ungard**

@rungard

McMaster University, Canada

Supervisor: Dr. Gurmit Singh

"You've Got It All Wrong, We're Not Trying  
To Cure The Cancer."



**Stacie Totsch**

@stacie\_totsch

The University of Alabama at  
Birmingham, USA

Supervisor: Dr. Robert Sorge

"Who Knew Eating Like An American  
Could Be So Painful?"



# **DAY BY DAY**

**SUNDAY, JUNE 25<sup>TH</sup>**

**MONDAY, JUNE 26<sup>TH</sup>**

**TUESDAY, JUNE 27<sup>TH</sup>**

**WEDNESDAY, JUNE 28<sup>TH</sup>**

**THURSDAY, JUNE 29<sup>TH</sup>**

**FRIDAY, JUNE 30<sup>TH</sup>**



**Sunday,  
June 25<sup>th</sup>**

**2:00-5:00 p.m.**

*Lobby*

**Registration and Check-in**

**4:00-5:00 p.m.**

*Foyer Outaouais*

**Welcoming Cocktail**

**4:45-5:00 p.m.**

*Outaouais I*

**Special Meeting for PRF-NAPS  
Correspondents**

*Christine Chambers and Neil Andrews*

**5:00-5:30 p.m.**

*Outaouais I*

**Opening Remarks**

**-Director's Welcome**

**-Supporters' Welcome**

**-Introduction of Executive Committee**

**-Debate Instructions and Teams**

**5:30-6:00 p.m.**

*Outaouais I*

**Patient Intros: Stéphanie Perreault  
and Mario Di Carlo**

*Behind the Mask of Pain: A Personal  
Journey*

**6:00-7:00 p.m.**

*Outaouais I*

**Keynote Lecture: John T. Farrar**

*Developing Better Analgesics: It's Difficult  
to Make Predictions, Especially About the  
Future*

**7:00-8:30 p.m.**

*Aux Chantignoles*

**Dinner**

**After 8:30 p.m.**

**Free Night**

**Monday,  
June 26<sup>th</sup>**

**7:00-7:45 a.m.**  
*Foyer Outaouais*

**Yoga with Ondine**

**8:00-9:00 a.m.**  
*Aux Chantignoles*

**Breakfast**

**9:00-9:30 a.m.**  
*Outaouais 1*

**Meet the Exec: Jeffrey Mogil**  
*Pain in Mice and Man: Ironic  
Adventures in Translation*

**9:30-10:00 a.m.**  
*Outaouais 1*

**Meet the Exec: Christine Chambers**  
*From Evidence to Influence: Making a  
Difference for Children in Pain*

**10:00-10:30 a.m.**  
*Outaouais 1*

**Student Presentations (#1-3)**

**10:30-11:00 a.m.**  
*Foyer Outaouais*

**Coffee Break**

**11:00-11:50 a.m.**  
*Outaouais 1*

**Daniel Clauw**  
*CNS Contributions to Chronic Pain-  
Maybe Sometimes It Is All in Their  
Head*

**11:50-12:20 p.m.**  
*Outaouais 1*

**Student Presentations (#5-7)**

**12:30-2:30 p.m.**  
*Aux Chantignoles*

**Lunch and Break**



**Monday,  
June 26<sup>th</sup>**

**2:30-3:20 p.m.**

*Outaouais 1*

**Rami Burstein**

*I'm Stressed. I Can't Sleep. I'm too Busy to Eat. Oh, and I Can't Get Rid of my Migraines. By the Way, Can I Make my Finger Hurt Just by Trying?*

**3:20-3:40 p.m.**

*Foyer Outaouais*

**Coffee Break**

**3:40-4:30 p.m.**

*Outaouais 1*

**Student Presentations (#8-12)**

**4:30-5:00 p.m.**

*Outaouais 1*

**Meet the Exec: Roger Fillingim**

*Forget About Where it Hurts, Let's Figure Out Why it Hurts*

**5:00-5:40 p.m.**

*Outaouais 1*

**Student Presentations (#13-16)**

**6:00-7:30 p.m.**

*Aux Chantignoles*

**BBQ Dinner**

**7:30-9:10 p.m.**

*Outaouais 1*

**Workshop: Interviewing and  
Diagnosing Pain Patients**

*Anne Louise Oaklander*

**9:15-11:00 p.m.**

*Meet in the lobby*

**Bonfire**

## Tuesday, June 27<sup>th</sup>

**7:00-7:45 a.m.**  
*Foyer Outaouais*

**Yoga with Ondine**

**8:00-9:00 a.m.**  
*Aux Chantignoles*

**Breakfast**

**9:00-9:50 a.m.**  
*Outaouais 1*

**Jennifer Haythornthwaite**  
*Thinking Inside and Outside the  
Box About Psychosocial Factors*

**9:50-10:30 a.m.**  
*Outaouais 1*

**Student Presentations (#17-20)**

**10:30-10:50 a.m.**  
*Foyer Outaouais*

**Coffee Break**

**10:50-11:50 am**  
*Outaouais 1*

**Student Presentations (#21-26)**

**12:00-2:00 p.m.**  
*Aux Chantignoles*

**Lunch and Break**

**2:00-3:40 p.m.**  
*Outside*

**Workshop: What Your Mentor  
Doesn't Know Might Hurt You**  
*Roger Fillingim*

**3:40-4:00 p.m.**  
*Foyer Outaouais*

**Coffee Break**

**Tuesday,  
June 27<sup>th</sup>**

**4:00-4:30 p.m.**

*Outaouais 1*

**Meet the Exec: Michael Gold**

*Peripheral Mechanisms of Pain-The  
Impact of What, Where and How*

**4:30-5:10 p.m.**

*Outaouais 1*

**Student Presentations (#27-30)**

**5:10-5:40 p.m.**

*Outaouais 1*

**Meet the Exec: Anne Louise Oaklander**

*Small Fibers-Big Pain Problem*

**6:00-7:30 p.m.**

*Aux Chantignoles*

**Dinner**

**7:30-9:10 p.m.**

*Outaouais 1*

**Workshop: How Do I Know if My  
Mouse is in Pain?**

*Michael Gold*

**9:10-11:00 p.m.**

**Debate Preparation**

## Wednesday, June 28<sup>th</sup>

**7:00-7:45 a.m.**  
*Foyer Outaouais*

**Yoga with Ondine**

**8:00-9:00 a.m.**  
*Aux Chantignoles*

**Breakfast**

**9:00-9:50 a.m.**  
*Outaouais 1*

**Anne-Marie Malfait**

*Arthritis Pain: Does the Joint Have Anything to Do With It?*

**9:50-10:20 a.m.**  
*Outaouais 1*

**Meet the Exec: Petra Schweinhardt**

*The Brain as a Pain Modulator - and Generator ?!*

**10:20-10:50 a.m.**  
*Foyer Outaouais*

**Coffee Break**

**10:50-12:30 a.m.**  
*Outside*

**Workshop: How to Get a Job**

*Nicolas Beaudet*

**12:30-2:30 p.m.**  
*Aux Chantignoles*

**Lunch and Break**

**2:30-4:30 p.m.**  
*Quebec/Ontario*

**Workshop: Pain and Sensory Testing in Humans**

*Petra Schweinhardt*

**4:30-6:00 p.m.**  
*Foyer Quebec/  
Ontario*

**Coffee Break and Debate Preparation**


**6:00-7:30 p.m.**  
*Heritage Terrace*

**Sugar Shack Dinner**

**7:30-9:10 p.m.**  
*Heritage*

**Workshop: Style Over Substance: Giving Better Talks**

*Jeffrey Mogil*



**Thursday,  
June 29<sup>th</sup>**

**7:00-7:45 a.m.**  
*Foyer Outaouais*

**Yoga with Ondine**

**8:00-9:00 a.m.**  
*Aux Chantignoles*

**Breakfast**

**9:00-9:50 a.m.**  
*Outaouais 1*

**Martin Schmelz**

*Which Peripheral Input Provokes Pain  
and Central Sensitization?*

**9:50-11:40 a.m.**  
*Outaouais 1*

**Workshop: Making Sure Your  
Research Makes a Difference: Knowledge  
Translation for Pain Scientists**

*Christine Chambers*

**12:00-5:00 p.m.**  
*Lobby*

**Recreational Outing**

**6:00-10:00 p.m.**  
*Foyer Outaouais*

**Cocktail & Banquet (including Student Debate)**

**10:00 p.m.**  
*Foyer Outaouais*

**Live band - J2**

**Friday,  
June 30<sup>th</sup>**

**Early birds**

*Lobby*

**Breakfast lunch box**

**8:00-10:00 a.m.**

*Aux Chantignoles*

**Breakfast**

**Before 12:00 noon**

*Lobby*

**Check-out**

**Shuttle departures :**

*(see shuttle schedule for specific details)*

**6:30 a.m.**

**10:00 a.m.**

**1:30 p.m.**



# PRF-NAPS Correspondents Program

The Executive Committee of NAPS is dedicated to engaging participants and other pain researchers using all of today's available tools. To this end, the Pain Research Forum (PRF) has committed to sponsor five NAPS participants as special "PRF Correspondents." The correspondents will reach others in the pain field through first-hand reporting online and through social media through content for the PRF website – including scientific session recaps, interviews with faculty, blog posts – and through live reporting on social media like Twitter. This initiative will benefit those outside of NAPS and help these five participants hone their science communications and writing skills.



**Mr. Neil Andrews**

PRF Executive Editor / Science Journalist and Writer



# Sponsors

NAPS appreciates funding by:

**ACTION (Analgesic, Anesthetic, and Addiction Clinical  
Trial Translations, Innovation, Opportunities, and Networks)**

[www.action.org](http://www.action.org)

**Chronic Pain Network – Strategy for Patient-  
Oriented Research**

[www.chronicpainnetwork.ca](http://www.chronicpainnetwork.ca)

**Grunenthal GmbH**

[www.grunenthal.com](http://www.grunenthal.com)

**The International Association for the Study of Pain**

[www.iasp-pain.org](http://www.iasp-pain.org)

**Eli Lilly Canada**

[www.lilly.ca](http://www.lilly.ca)

**The Pain Research Forum**

[www.painresearchforum.org](http://www.painresearchforum.org)

**The Quebec Pain Research Network**

[www.qprn.ca](http://www.qprn.ca)



# Supporters

NAPS appreciates support by:

## The American Pain Society

[www.americanpainsociety.org](http://www.americanpainsociety.org)

## The Canadian Pain Society

[www.canadianpainsociety.ca](http://www.canadianpainsociety.ca)

## The Mayday Fund

[www.maydayfund.org](http://www.maydayfund.org)





# North American Pain School

## Coordination team

**Nicolas Beaudet, PhD**

(819) 821-8000 x70530

[naps@iasp-pain.org](mailto:naps@iasp-pain.org)

**Alexandre Parent, PhD**

[naps@iasp-pain.org](mailto:naps@iasp-pain.org)

**[www.northamericanpainschool.com](http://www.northamericanpainschool.com) #NAPainSchool**

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