Canadian Sleep
Society

Société Canadienne
du Sommeil

EN

# CANADIAN SLEEP SOCIETY
## CONFERENCE PROGRAM

**OCTOBER 28 TO 30, 2021 | 28 AU 30 OCTOBRE 2021**

# SOCIÉTÉ CANADIENNE DU SOMMEIL
## PROGRAMME DE LA CONFERENCE

#CSSSleep2021

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# WELCOME FROM THE CSS PRESIDENT AND CONFERENCE CHAIR

Dear colleagues,

On behalf of the Canadian Sleep Society (CSS), and the Executive board of the society, I am delighted to welcome you to the10th Congress of the CSS! As the pandemic is still upon us, this will be our first (and maybe only) fully virtual conference. Some of you might be fed up with the virtual world, others might welcome it. Like it or not, we are all connecting and connected, and I surely hope you will enjoy what we have developed on the web platform for you. As always, our scientific conference is an opportunity to share scientific discoveries, network with colleagues, and, of course, learn about the latest innovations and technologies in the sleep field, albeit sleep research or sleep medicine.

As you all know, CSS was born more than 30 years ago, with an inclusive vision of all cultures and all individuals, no matter the origin.  Although CSS is an apolitical body while advocating for healthy sleep for all Canadians, CSS does recognize that its foundation wouldn't have been possible without those who preceded us and welcomed us on these rich lands. Today, we salute the growth of all our people, from trainees to scientists, researchers, physicians, technologists, dentists and all the different fields of sleep research and sleep medicine all of you have chosen to exercise/practice.

Today, as we are embarking on this virtual event, I would like to acknowledge and thank the numerous people who have worked tirelessly to make this conference a success. There are dozens of volunteers on the various working committees who devoted their time and efforts to make this event a success. The Chairs of these committees deserve a special recognition for their leadership. As Chair of the Scientific Program Committee and our Vice President of Research, Thanh DANG-VU has brought us a high-quality and energic program and his team of reviewers has chosen the best of many submissions for symposia, oral presentations, and abstracts.  I also would like to underline the unvaluable contributions of all our keynote speakers and awardees to the diversity of our program.  I would also like to acknowledge the support of Catherine and Florence from head office for their input on the different communications and for their input and development of the patients' day and the public lectures.

Once again, our Technologist representatives (Laree, AnDrea and **Santixay),** Student representatives (Nic and Sarah), and Dental representative (Patrick) have outdone themselves and have spearheaded excellent programs designed for their specific fields of interests. With the addition of a complete CME program (lead by Robert), Pharmacists (led by Yannick Villeneuve and Suzanne Gilbert) and the CBT-I workshops/courses (Judith and Annie), experts of the CSS and from you, the membership, we are sharing knowledge in building adequate informative programs to fulfil the CSS educational mission.

Whether this is your first time attending a Canadian Sleep Society conference, or you are a faithful member who has been part of them all, I thank you for your participation and hope you learn new

facts about sleep and meet new colleagues who share your interests. I also want to sincerely thank our sponsors and industry exhibitors that enable this conference to take place and add significantly to the spirit of discovery and innovation that marks this Canadian Sleep Society meeting. So sit tight, accept all 'cookies', be prepared to be active in the chat box and enjoy the event! Last, and not the least, have fun...

Célyne Bastien, PhD
President, Canadian Sleep Society


## WELCOME FROM 2021 CONFERENCE CHAIR OF THE SCIENTIFIC COMMITTEE

Dear colleagues,

On behalf of the CSS and the Scientific Program Committee, I would like to welcome you to the Canadian Sleep Society first ever, fully virtual conference. We have an exciting program that features a broad range of topics within sleep research and sleep medicine, from new key discoveries in basic sleep science to the latest perspectives for the treatment of sleep disorders. The conference will also present several sessions dedicated to the impact of the COVID-19 pandemic on sleep and health.

This year, thanks to the virtual format of the conference, we were able to plan many sessions, which will be run in parallel and recorded, allowing attendees to watch them even after the conference. In addition to our Distinguished Scientist and Distinguished Lecturer presentations, the conference will feature 9 keynote speakers, twelve scientific symposia, 6 oral sessions and two poster sessions. Our keynote speakers are renowned experts in their field and will provide the latest perspectives on current developments and practice in sleep science and sleep medicine. Our scientific symposia cover a broad range of topics ranging from basic science to clinical care pathways. Presentation of original scientific research in both poster and oral formats will enable trainees and researchers to interact with the broader scientific sleep community.

I would like to thank the members of the Scientific Program Committee for their contribution to the creation of this program. It is my hope and expectation that the scientific program will be informative and stimulating, that it will address the needs of the multidisciplinary sleep community in Canada and beyond, and will advance the clinical, educational and research objectives of the CSS.

Sincerely | Sincèrement,
Thanh Dang-Vu, MD PhD
Vice-President (Research), Canadian Sleep Society

## ABOUT THE CANADIAN SLEEP SOCIETY

The CSS is a professional association formed in June 1986 to further the advancement and understanding of sleep and its disorders.

The vision of CSS is:

## *"Healthy sleep for healthy Canadians"*

MISSION STATEMENT: The Canadian Sleep Society is a national organization committed to improving sleep for all Canadians through:

1. Support for research,
2. promotion of high-quality clinical care,
3. Education of professionals and the public, and
4. Advocacy for sleep and sleep disorders medicine.

## https://css-scs.ca/

Past-Presidents of the Canadian Sleep Society:

- *Roger Broughton, MD, PhD*                       *1986-1988*
- *Robert D. Ogilvie, PhD,*                            *1988-1990*
- *Meir H. Kryger, MD,*                                  *1990-1993*
- *Alistair MacLean, PhD,*                             *1993-1996*
- *Charlie George, MD,*                                 *1996-1999*
- *Joseph De Koninck, PhD,*                           *1999-2002*
- *Charles Morin, PhD,*                                  *2002-2005*
- *Gilles Lavigne, DMD, PhD,*                         *2005-2008*
- *Helen S. Driver, PhD, RPSGT, DABSM*         *2008-2011*
- *Shelly Weiss, MD,*                                      *2011-2014*
- *Kimberly Cote, PhD,*                                  *2014-2017*
- *Charles Samuels, MD, CCFP, DABSM,*          *2017-2019*

# CONFERENCE COMMITTEES

### Scientific Program Committee
Co-Chairs:

- Thanh Dang-Vu, MD PhD; Vice-President (Research), Canadian Sleep Society; Professor, Dpt of Health, Kinesiology and Applied Physiology, Concordia University; Neurologist, Associate Director for Clinical Research, Centre de Recherche de l'Institut Universitaire de Gériatrie de Montréal (CRIUGM), Montreal, QC
- Célyne Bastien, PhD; President, Canadian Sleep Society; School of Psychology, Laval University, Quebec City, QC

**Committee Members:**

- Najib Ayas, MD MPH; Treasurer, Canadian Sleep Society; University of British Columbia, Vancouver, BC
- Robert P. Skomro, MD, FRPCPC, Vice-President (Clinical), Canadian Sleep Society; Professor, Division of Respiratory Critical Care and Sleep Medicine, University of Saskatchewan, Saskatoon, SK
- Kazue Semba, PhD; Dalhousie University, Halifax, NS
- Jennifer McGrath, PhD; Concordia University, Montreal, QC
- Birgit Frauscher, MD, Associate Professor, McGill University; Director, ANPHY Lab, Montreal Neurological Institute and Hospital; Group Leader, Epilepsy, Montreal Neurological Institute and Hospital
- Laura Ray, RPSGT, MSc, Sleep Well - Sleep Analytics, Quebec, Canada
- Kimberly Cote, PhD, Brock University, Niagara, ON
- John Peever, PhD, University of Toronto, ON
- Brian Murray, MD, FRCPC, D,ABSM, University of Toronto, Toronto, ON

### Primary Care Program Committee
Program Chair:

- Robert P. Skomro, MD, FRPCPC, Vice-President (Clinical), Canadian Sleep Society; Professor, Division of Respiratory Critical Care and Sleep Medicine, University of Saskatchewan, Saskatoon, SK

**Committee Members:**

- Thanh Dang-Vu, MD PhD; Vice-President (Research), Canadian Sleep Society; Professor, Dpt of Health, Kinesiology and Applied Physiology, Concordia University; Neurologist, Associate Director for Clinical Research, Centre de Recherche de l'Institut Universitaire de Gériatrie de Montréal (CRIUGM)

### Dental Program Committee

- Patrick Arcache, DMD

### Technologist Program Committee

- Laree Fordyce, CCSH, RPSGT, RST, CCRP
- AnDrea Siemens, RPSGT, RST, RRT, Victoria, BC

**Pharmacy Program Committee**
**Co-Chairs:**

- Yannick Villeneuve, B. Pharm., M. Sc., BCGP, Pharmacien à l'Institut Universitaire de Gériatrie de Montréal (IUGM) du CIUSSS du Centre-Sud-de-l'île-de-Montréal, Chercheur clinicien associé, Centre de Recherche de l'Institut Universitaire de Gériatrie de Montréal (CRIUGM)
- Suzanne Gilbert, B.Pharm, M.Sc., M.A.P, BCGP, FOPQ, Pharmacienne au CIUSSS Centre-Sud-de-l'Ile-de-Montréal, Pharmacienne territoriale - RUISSS Montréal, Démarche OPUS-AP/PEPS, Chercheure clinicienne associée, Centre de Recherche de l'Institut Universitaire de Gériatrie de Montréal (CRIUGM)

**Committee Members:**

- Camille Gagnon, PharmD, Assistant Director, Canadian Deprescribing Network
- Louise Papillon-Ferland, Louise Papillon-Ferland, B. Pharm., M. Sc., Pharmacienne à l'Institut Universitaire de Gériatrie de Montréal (IUGM) du CIUSSS du Centre-Sud-de-l'île-de-Montréal, Professeur adjointe de clinique (Faculté de pharmacie, Université de Montréal); Chercheure clinicienne associée (Centre de recherche de l'IUGM)
- Annie Roberge, B. Pharm., M. Sc., Certificat en santé communautaire, Pharmacienne au CIUSSS de la Capitale-Nationale
- Justin Turner, PhD, MClinPharm, BPharm. Assistant Professor, Faculty of Pharmacy, University of Montreal; Researcher, Centre de Recherche de l'Institut Universitaire de Gériatrie de Montréal (CRIUGM)

**Fundraising Committee**

- Célyne Bastien, PhD; President, Canadian Sleep Society; School of Psychology, Laval University, Quebec City, QC
- Najib Ayas, MD MPH; Treasurer, Canadian Sleep Society; University of British Columbia, Vancouver, BC
- Robert P. Skomro, MD, FRPCPC, Vice-President (Clinical), Canadian Sleep Society; Professor, Division of Respiratory Critical Care and Sleep Medicine, University of Saskatchewan, Saskatoon, SK

**Trainee Day Committee**
**Co-Chairs:**

- Sara Pintwala, PhD Candidate, University of Toronto
- Nicholas van den Berg, PhD Candidate, University of Ottawa

**Committee Members:**

- Samuel Gillman, MSc Candidate, Concordia University
- Tanya Leduc, PhD Candidate, Université de Montréal
- Chun "Willie" Yao, PhD Candidate, McGill University

**Conference Management Team:**

- Catherine Bourguinat, PhD, MPH, Executive Director of the Canadian Sleep Society
- Roberta Dexter Robidoux, Strategic Meeting Designs
- Marina Vetrovec, Strategic Meeting Designs
- Dylan Mombourquette, Strategic Meeting Designs

## AWARD WINNERS

The CSS is pleased to announce several society awards that will be presented in opening ceremonies. Awards are adjudicated by a combination of Executive board members, scientific program committee members, and past presidents.

**Distinguished Scientist Award**

The CSS Distinguished Scientist Award is in recognition of a scientist who has made significant contributions to the field of sleep research in Canada. It is awarded at the Conference of CSS and the recipient is invited to give a keynote address.

# 2021 WINNER: Dr. Julie Carrier, Université de Montréal

In showing the crucial role sleep that plays in both psychological and physical health, Professor Julie Carrier has emerged as the Canadian leader in a field of study that still holds many secrets. Her work shows that sleep quality among certain people in their 50s can predict Alzheimer's and many other diseases. "Tell me how you sleep and I'll tell you what to expect in terms of obesity and your cardiovascular and cognitive health in a few years," she says.

After completing her PhD at the Université de Montréal, she decided to devote her postdoc studies to exploring why sleep quality diminishes for seniors and its consequences. "Older people sleep for shorter periods, sleep more lightly and wake up more often. Sleep has a significant effect on memory and learning, and we have shown that, as people age, their brains are less capable of benefiting from sleep in this way."

**Session Title:** *Functional sleep connectivity: from slow oscillations to the Canadian Sleep and Circadian Network*

Opening Keynote Presentation | October 28, 2021 | 6:00 – 7:00 PM Eastern Time

**Past Winners of the Distinguished Scientist Award:**

2007    Jacques Montplaisir
2009    Carlyle Smith
2011    Ben Rusak and Meir Kryger
2013    Joseph De Koninck
2015    Elliot Phillipson
2017    Barbara E. Jones
2019    Kazue Semba

**Distinguished Lecturer Award**

The CSS Distinguished Lecturer Award will be awarded to an outstanding scientist who has conducted the majority of their research in Canada and has contributed significantly to the advancement of sleep sciences. Nominees may have conducted work in any one of a number of sleep disciplines and within any of the four CIHR research theme areas: Biomedical; Clinical; Health Systems and Services; and, Social, Cultural, Environmental and Population Health. It will be awarded at the 2021 Conference of CSS and the recipient is invited to give a keynote address.

# 2021 WINNER: Dr. Douglas Bradley, University of Toronto



Professor of Medicine and Department Division Director, Respirology, at the University of Toronto, the Cardiopulmonary Sleep Disorders and Research Centre at the Toronto General Hospital/University Health Network, and the Sleep Research Laboratory at the Toronto Rehabilitation Institute. He also holds the Cliff Nordal Chair in Sleep Apnea and Rehabilitation Research at the Toronto Rehabilitation Institute and the Godfrey S. Pettit Chair in Respiratory Medicine.

**Session Title:** Pathophysiological interactions between sleep apnea and fluid-retaining states – a two-way street
Closing Keynote Presentation | October 30, 2021
6:15 – 7:15 PM Eastern Time

**Past Winners of the Distinguished Lecturer Award:**
2018    Charles Morin

**Roger Broughton Young Investigator Award Winner**

The Roger Broughton Young Investigator Award honours the contributions of Dr. Roger Broughton, founding President of the Canadian Sleep Society (1986-88), and one of the founding figures of Canadiansleep research. The award will be made to a young scientist for important early career researchcontributions, rather than a single submitted abstract or paper.

Please join us in congratulating this year's winner, GUIDO SIMONELLI, M.D.

Dr. Guido Simonelli is an Assistant Professor in the Department of Medicine at the University of Montréal and a Research Scientist at the Center for Advanced Research in Sleep Medicine at the Hôpital du Sacré-Cœur de Montréal. He received his medical degree from the University of Buenos Aires in 2014, and a Master of Science degree at the University of Montreal in 2021. Prior to moving to Montreal, he worked at Walter Reed Army Institute of Research supported by a 5-year postdoctoral fellowship from the National Academy of Science (USA). With over 38 sleep-related peer-reviewed publications, Dr. Simonelli's research program focuses on the intersection of sleep, public health and human performance. His program aims to characterize environmental, social, and behavioural determinants of sleep health, and to characterize cognitive, physical, and mental health outcomes of sleep health. He is a recipient of the Research Scholar Junior 1 career award by FRQS, and his research program is additionally supported by the Office of Naval Research (USA), Public Health Agency of Canada and the Tri-Council funding agencies. Dr. Simonelli is an associate editor of Sleep Health: Journal of the National Sleep Foundation, and a faculty member of the CSS/CSCN Trainee Task Force.

The winner will receive the award during the opening ceremonies on Thursday, October 28, 2021 at 5 pm Eastern Time during the opening ceremonies.

Past Winners of the Roger Broughton Young Investigator Award:
2004    Kimberly Cote
2007    John Peever and Penny Corkum
2009    Jean-Francois Gagnon
2011    Robyn Stremler
2013    Antoine Adamantidis
2015    Jean-Philippe Chaput and Thanh Dang-Vu
2017    Stuart Fogel
2019    David Samson

**CSS Trainee Outstanding Achievement Awards**

This award is for the scientific merit of a single publication by a student in the field of sleep research. Funding for these awards is made through the CSS student fund – thank you to CSS members who made contributions to the student fund with their CSS registration.

The CSS is pleased to present this year's awards to: **Claudia Picard-Deland et Véronique Latreille**

Claudia Picard-Deland, Université de Montréal
ABSTRACT: 'Whole-body procedural learning benefits from targeted memory reactivation in REM sleep and task-related dreaming'

Claudia Picard-Deland is a Neuroscience PhD student at the University of Montreal. Her research is conducted with Dr Tore Nielsen at the Dream and Nightmare Laboratory at the Center for Advanced Research in Sleep Medicine, located at the Hôpital du Sacré-Coeur de Montréal. Her main research explores the relationships between sleep, dreams and memory consolidation, using methods of virtual reality, polysomnography and sound stimulation during sleep to understand how memory reactivations influence dreams and contribute to learning. Other topics of her work include the pathophysiology of nightmares, the phenomenon of flying in dreams, lucid dreaming, false awakenings, and collective changes in dreams during the Covid-19 pandemic.

She also communicates sleep and dream science to the public through writing, public lectures and media interviews. She is part of the editorial team of the University of Montreal Dire journal, coordinator for the teaching of neuroscience in prisons with Brain Reach and an active member of the "Sleep on it" Canadian public health campaign on sleep.

Véronique Latreille, McGill University
ABSTRACT: 'The human K-complex: insights from combined scalp-intracranial EEG recordings'

Véronique Latreille is a neuropsychologist with subspecialty training in neurologic and neurodegenerative disorders. She is a member of the Order of Psychologists of Quebec (OPQ) and an OPQ-certified neuropsychologist. She joined Dr. Birgit Frauscher's lab at the Montreal Neurological Institute-Hospital affiliated to McGill University in 2018 as a postdoctoral research fellow. She did her Ph.D. in clinical neuropsychology at the Université de Montréal (2010-2016). Her thesis work aimed to identify sleep biomarkers of dementia development in Parkinson's disease. From 2016-2018, she did a postdoctoral fellowship on sleep and epilepsy (CIHR postdoctoral scholarship) at Brigham and Women's Hospital, Harvard Medical School in Boston, USA. She has been working on the relationships between sleep disorders, cognitive functioning, and seizure activity in adults with epilepsy. From 2019-2020, she was a recipient of the MNI Jeanne Timmins Costello Fellowship. She is now the recipient of the prestigious Banting postdoctoral fellowship for 2020-2022.

As part of Dr. Frauscher's lab, she uses intracranial EEG to study sleep neurophysiology and identify sleep biomarkers of the epileptogenic zone in patients with epilepsy. Véronique was

awarded several prizes and scholarships for her research contributions over the past years (i.e., CIHR and FRQS Master/Doctoral Scholarships, Anne Martin-Matthews Prize in 2013, Guy-Bégin Prize in 2015, Future Clinical Researchers in Neurology and Neuroscience Scholarship in 2018, World Sleep Society Young Investigator Award 2019).

The winners will receive their awards during the opening ceremonies on Thursday, October 28, 2021 at 5 pm Eastern Time during the opening ceremonies.

**Past Winners of the Trainee (Student) Outstanding Achievement Awards:**

| | |
|---|---|
| 2009 | Patti Brooks |
| 2011 | Ari Shecter, Émilie Fortier-Brochu |
| 2013 | Jennifer Lapierre |
| 2015 | Kevin Grace |
| 2017 | Richard Boyce |
| | Samuel Laventure |
| 2019 | Erlan Sanchez |

**CSS Technologist Service Award**

This award honours and recognizes a CSS member who has made significant contributions to the growth and development of the sleep technology profession.

The CSS is pleased to present this year award to: **AnDrea Siemens**



**Past Winners of the Technologist Service Award:**

| | |
|---|---|
| 2016 | Michael Eden |
| 2017 | Laree Fordyce |

**CSS Student Abstract Prize**

Each year the CSS holds a competition for CSS student members for the best abstract submitted(to either SLEEP in the U.S., or CSS when conferences are held in Canada). The competition is open to trainees (undergraduate or graduate students) who are current CSS members. The award applicant must be the first author on the abstract presented at the CSS 2021 Virtual Conference.
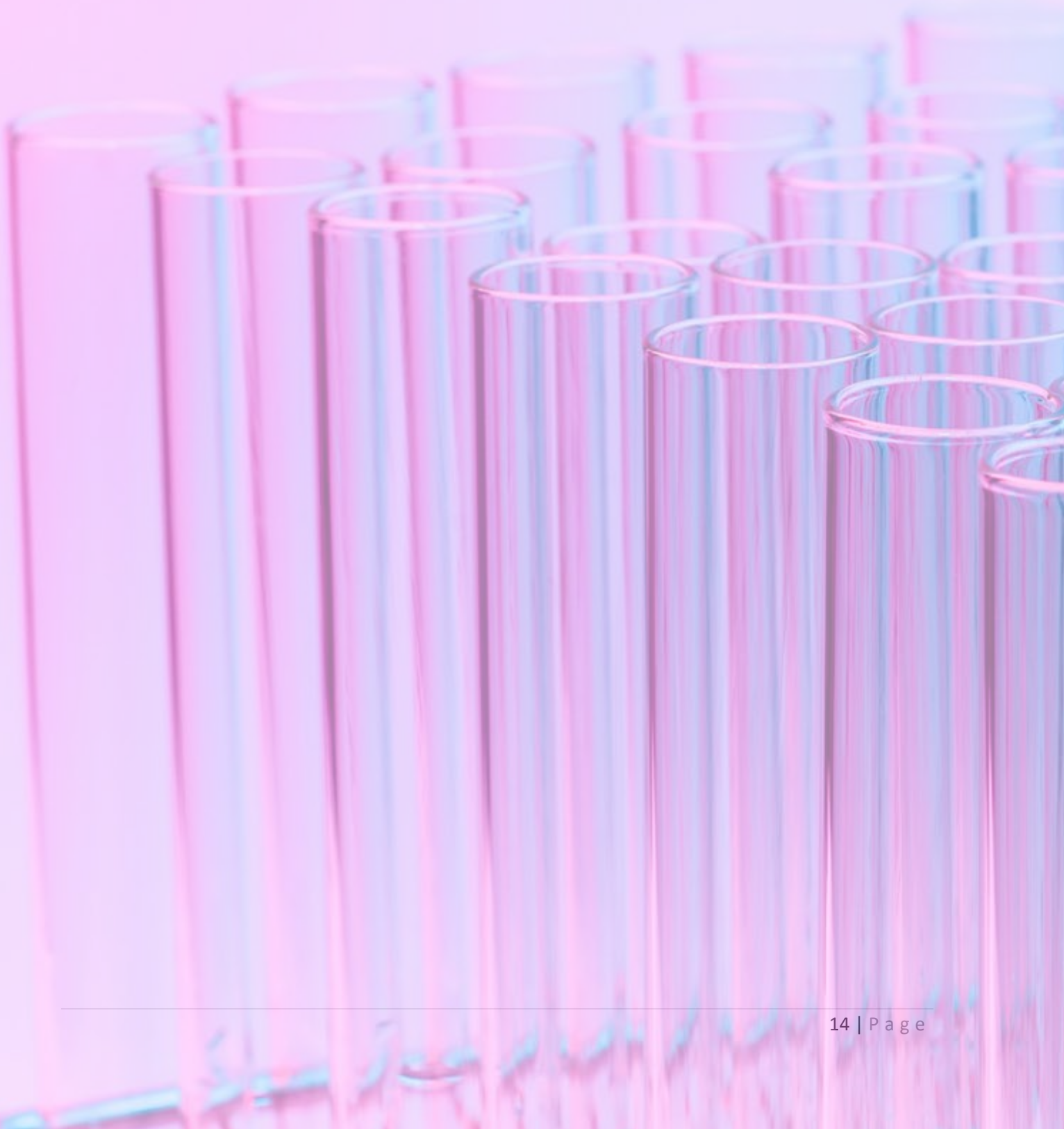
STUDENT ABSTRACT PRIZE WINNER –  Sara Pintwala, University of Toronto
Abstract Presentation:  *Transplanting immortal orexin cells in narcolepsy*
DATE/TIME: TRAINEE RESEARCH DAY – OCTOBER 28, 2021 3:30-3:45 PM

#CSSSleep2021

2021 Canadian Sleep Society Conference

# GENERAL SCIENTIFIC PROGRAM
October 28-30, 2021

# SCIENTIFIC PROGRAM

## SCHEDULE AT A GLANCE:  THURSDAY, OCTOBER 28, 2021

| | | |
|---|---|---|
| 4:00 PM | 5:00 PM | Exhibit Hall Open + Sponsor Presentations |
| 5:00 PM | 6:00 PM | Opening Ceremonies & Awards |
| 6:00 PM | 7:00 PM | **OPENING KEYNOTE**:  Distinguished Scientist Presentation<br>Functional sleep connectivity: from slow oscillations to the Canadian Sleep and Circadian Network<br>Dr. Julie Carrier, Université de Montréal |

## SCHEDULE AT A GLANCE:  FRIDAY, OCTOBER 29, 2021

| Start | End | GENERAL SESSIONS | | | | TECHNOLOGIST PROGRAM |
|---|---|---|---|---|---|---|
| 8:30 AM | 10:00 AM | Sponsored Satellite Presentation by Jazz Pharmaceuticals | | | | |
| 10:00 AM | 11:00 AM | Virtual Exhibits Open + Sponsor Mini-Talks | | | | |
| 11:00 AM | 12:00 PM | **KEYNOTE 1**: Neural circuits underlying sleep structure and functions<br>Dr. Antoine Adamantidis, University of Bern, Bern, Switzerland | | | **KEYNOTE 2**: Understanding and treating sleep problems in children with and without neurodevelopmental disorders<br>Dr. Penny Corkum, Dalhousie University, Halifax, Canada | |
| 12:00 PM | 12:30 PM | Lunch Break and Virtual Exhibits Open | | | | |
| 12:30 PM | 2:00 PM | **SYMPOSIUM 1**:<br>Sleep, emotions and mood disorders during the COVID 19 Pandemic across Countries and Populations | **SYMPOSIUM 2**:<br>Sleep and Cognitive Impairment: An Evidence-Based Clinical Update | **SYMPOSIUM 3**:<br>Multimodal neuroimaging during sleep: How can simultaneous recording advance our understanding of the sleeping human brain? | **PRESENTATION**:<br>What every sleep provider needs to know about management of perioperative sleep disordered breathing?<br>*A Society of Anesthesia and Sleep Medicine (SASM) Session* | **TECHNOLOGIST PROGRAM**<br>Optimizing Mask Selection and The Right Therapy for the Right Patient<br>Doug Scullion, ResMed<br>Lindsay McFarland, ResMed<br>12:30-2:30 PM<br>2 Hour Workshop |
| 2:00 PM | 2:15 PM | Virtual Exhibits Open | | | | |
| 2:15 PM | 2:30 PM | **SYMPOSIUM 4**:<br>The Impact of the COVID-19 Pandemic on Sleep: A Contextual Perspective | **SYMPOSIUM 5**:<br>Precision Medicine in Obstructive Sleep Apnea: Are We Getting Close? | **SYMPOSIUM 6**:<br>Sensory stimulation for manipulating sleep brain oscillations | **ORAL SESSION 1**:<br>Neural Control of Sleep and Wakefulness | **TECHNOLOGIST PROGRAM**<br>The Effects of Recreational Drugs on Sleep<br>Dr. James MacFarlane<br>2:30 - 3:30 PM<br>(60 minutes) |
| 2:30 PM | 3:45 PM | | | | | |
| 3:45 PM | 4:00 PM | Virtual Exhibits Open | | | | |
| 4:00 PM | 5:30 PM | **SYMPOSIUM 7**:<br>New Insights into Sleep Disordered Breathing in Selected Populations | **SYMPOSIUM 8**:<br>Bringing the Sleep Laboratory to a Patient's Home | **ORAL SESSION 2**:<br>Insomnia: Updates on Treatments | **ORAL SESSION 3**:<br>Sleep Across the Lifespan | **TECHNOLOGIST PROGRAM**<br>Auto Scoring in Polysomnography<br>Andrea Ramberg, EnsoData |
| 5:30 PM | 5:45 PM | Virtual Exhibits Open | | | | |
| 5:45 PM | 6:45 PM | **KEYNOTE 3**: Roles of astrocytes in modulating sleep/wake neurons: A novel mechanism for sleep homeostasis?<br>Dr. Kazue Semba,<br>Dalhousie University, Halifax, Canada | | | **KEYNOTE 4**: Sleep Health Disparities: Implications for Improving Population Health<br>Dr. Dayna Johnson,<br>Emory University, Atlanta, USA | |

| 6:45 PM | 8:00 PM | SCIENTIFIC POSTER PRESENTATIONS & VIRTUAL EXHIBIT HALL | |
|---|---|---|---|
| 8:00 PM | 9:00 PM | KEYNOTE 5:  Maternal Sleep-Disordered Breathing during Pregnancy: Cardiometabolic Implications for Mother and Baby<br>Dr. Sushmita Pamidi, McGill University, Montreal, Canada | ROUNDTABLE:<br>Surveillance of Sleep Health in Canada<br>Karen Roberts, Public Health Agency of Canada |

## SCHEDULE AT A GLANCE:  SATURDAY, OCTOBER 30, 2021

| Start | End | GENERAL SESSIONS | | | | TECHNOLOGIST PROGRAM |
|---|---|---|---|---|---|---|
| 8:30 AM | 10:00 AM | Sponsored Satellite Presentation by Eisai | | | | |
| 10:00 AM | 11:00 AM | Virtual Exhibits Open + Sponsor Mini-Talks | | | | |
| 11:00 AM | 12:00 PM | KEYNOTE 6: Sleep for Memory<br>Dr. Jan Born,<br>University of Tubingen, Germany | | KEYNOTE 7:  Re-Thinking oral appliance therapy<br>Dr. Fernanda Almeida,<br>University of British Columbia, Vancouver, Canada | | |
| 12:00 PM | 12:15 PM | Virtual Exhibits Open | | | | |
| 12:15 PM | 1:45 PM | SYMPOSIUM 9:<br>In the Wild: Leveraging Technologies to Accelerate the Translation and Reach of Sleep and Circadian Science Into Real-Life Settings | SYMPOSIUM 10:<br>Sleep and dementia risk: identifying involved sleep characteristics and mechanisms | ROUNDTABLE:<br>*Mind the Gap* in Child & Adolescent Mental Health: The Interplay between Medication Treatment and Sleep | ORAL SESSION 4:<br>Daytime Sleepiness and Hypersomnolence Disorders | TECHNOLOGIST PROGRAM<br>Mask Selector, Navigating to the Right Mask the First Time<br>Ali Janili, Philips Respironics |
| 1:45 PM | 2:15 PM | Lunch Break and Virtual Exhibits Open | | | | |
| 2:15 PM | 3:45 PM | SYMPOSIUM 11:<br>Sleep health disparities during COVID19 pandemic: A health equity issue | SYMPOSIUM 12:<br>Interrogation of new sleep/wake regulating circuits | ORAL SESSION 5:<br>Sleep and Neurodegenerative Diseases | ORAL SESSION 6:<br>Sleep, Stress, Emotional Regulation and Insomnia | TECHNOLOGIST PROGRAM<br>What Are Medical Ethics?<br>2:15 - 3:00 PM<br>Michael Eden, BA(hon), RPSGT, RST<br>Sleep and Athletes<br>3:00 - 3:45 PM<br>Dr. Jonathan Charet |
| 3:45 PM | 4:00 PM | Virtual Exhibits Open | | | | |
| 4:00 PM | 5:00 PM | SCIENTIFIC POSTER PRESENTATIONS & VIRTUAL EXHIBIT HALL | | | | |
| 5:00 PM | 6:00 PM | KEYNOTE 8:  The mechanistic role of sleep in fear processes underlying anxiety disorders and PTSD.<br>Dr. Sean P. Drummond,<br>Monash University, Melbourne, Australia | | KEYNOTE 9:  Light, Circadian Rhythms and Human Health<br>Dr. Helen Burgess,<br>University of Michigan Medical School, Ann Arbor, USA | | |
| 6:00 PM | 6:15 PM | Virtual Exhibits Open | | | | |
| 6:15 PM | 7:15 PM | CLOSING KEYNOTE:  Distinguished Lecturer<br>Pathophysiological Interactions Between Sleep Apnea and Fluid-retaining States: A Two-way Street<br>Dr. Douglas Bradley | | | | |
| 7:15 PM | 8:00 PM | Conference Wrap-up, Awards (students), Prizes | | | | |

# 2021 CONFERENCE KEYNOTE SPEAKERS

Thursday, Oct 28, 2021 | 6:00 - 7:00 PM
**OPENING KEYNOTE BY 2021 CSS DISTINGUISHED SCIENTIST, DR. JULIE CARRIER:** *Functional sleep connectivity: from slow oscillations to the Canadian Sleep and Circadian Network*
Dr. Julie Carrier, Université de Montréal

Friday, Oct 29, 2021 | 11:00 AM - 12:00 PM
**KEYNOTE 1:** *Neural circuits underlying sleep structure and functions*
Dr. Antoine Adamantidis, University of Bern, Bern, Switzerland

Friday, Oct 29, 2021 | 11:00 AM - 12:00 PM
**KEYNOTE 2:** *Understanding and treating sleep problems in children with and without neurodevelopmental disorders*
Dr. Penny Corkum, Dalhousie University, Halifax, Canada

Friday, Oct 29, 2021 | 5:45 - 06:45 PM
**KEYNOTE 3:** *Roles of astrocytes in modulating sleep/wake neurons: A novel mechanism for sleep homeostasis?*
Dr. Kazue Semba, Dalhousie University, Halifax, Canada

Friday, Oct 29, 2021 | 5:45 - 06:45 PM
**KEYNOTE 4:** *Sleep Health Disparities: Implications for Improving Population Health*
Dr. Dayna A. Johnson, Emory University

Friday, Oct 29, 2021 | 8:00 - 9:00 PM
**KEYNOTE 5:** *Maternal Sleep-Disordered Breathing during Pregnancy: Cardiometabolic Implications for Mother and Baby*
Dr. Sushmita Pamidi, McGill University

# 2021 CONFERENCE KEYNOTE SPEAKERS

Saturday, Oct 30, 2021 | 11:00 AM- 12:00 PM
**KEYNOTE 6**: *Sleep for Memory*
Dr. Jan Born, University of Tubingen, Germany

Saturday, Oct 30, 2021 | 11:00 AM - 12:00 PM
**KEYNOTE 7:** *Re-Thinking oral appliance therapy*
Dr. Fernanda Almeida, University of British Columbia

Saturday, Oct 30, 2021 | 5:00 - 06:00 PM
**KEYNOTE 8:** *The mechanistic role of sleep in fear processes underlying anxiety disorders and PTSD*
Dr. Sean Drummond, Monash University

Saturday, Oct 30, 2021 | 5:00 - 06:00 PM
**KEYNOTE 9:** *Light, Circadian Rhythms and Human Health*
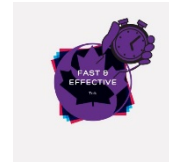Dr. Helen Burgess, University of Michigan Medical School

Saturday, Oct 30, 2021 | 6:15 - 07:15 PM
**CLOSING KEYNOTE BY 2021 CIHR-ICRH/CSS DISTINGUISHED LECTURER, DR DOUGLAS BRADLEY:** *Pathophysiological Interactions Between Sleep Apnea And Fluid-retaining States: A Two-way Street*
Dr. Douglas Bradley, University of Toronto

Thursday, Oct 28, 2021 | 4:00 – 5:00 PM | *EXHIBIT HALL & SPONSOR "FAST AND EFFECTIVE TALKS"*

Thursday, Oct 28, 2021 | 5:00 – 6:00 PM | *OPENING CEREMONIES & AWARDS*

## SCIENTIFIC PROGRAM: DETAILED - THURSDAY, OCTOBER 28, 2021

Thursday, Oct 28, 2021 | 6:00 – 7:00 PM | *OPENING KEYNOTE*
*2021 CSS Distinguished Scientist Presentation*

OPENING KEYNOTE:  Functional sleep connectivity: from slow oscillations to the Canadian Sleep and Circadian Network
Dr. Julie Carrier, Université de Montréal



LEARNING OBJECTIVES:
After active engagement in this session, participants will better be able to :
LEARNING OBJECTIVE 1:  Describe and recognize how sleep stages and oscillations modulate cerebral functional connectivity (FC).
LEARNING OBJECTIVE 2:  Assess and evaluate functional connectivity of sleep with aging.
LEARNING OBJECTIVE 3: Contribute to and collaborate with collegial networks to develop sleep science and accelerate translation of sleep research discoveries to society.

SESSION DESCRIPTION:  Over the last decades, a particular attention has been paid on the functional brain networks associated with brain states and their dynamics across changes of states of vigilance.  This global perspective of the brain activity, which accounts for the brain mechanisms underlying the functional integration of the segregated activities, has been recently extended to the sleep state. For instance, studies demonstrated a significant increase in local cortical functional connectivity (FC) during NREM sleep whereas long-range cortico-cortical FC decreases with the descent from wakefulness to slow-wave sleep. I will discuss the effects of age on cerebral functional connectivity during sleep, using EEG, MEG, and fMRI-EEG.  Age-related differences in FC at the scale of sleep stages, sleep cycles and slow oscillations will be presented. How functional connectivity during sleep may be a marker of cognitive integrity in older individuals will also be discussed. Finally, I will show the importance of networks to develop sleep science and accelerate translation of sleep research discoveries to society.

SCIENTIFIC PROGRAM: DETAILED - FRIDAY, OCTOBER 29, 2021

Friday, Oct 29, 2021 | 8:30 - 10:00 AM:  *SYMPOSIUM:  SPONSORED BY JAZZ PHARMACEUTICALS*
Friday, Oct 29, 2021 | 10:00 – 11:00 AM:  *EXHIBIT HALL & SPONSOR "FAST AND EFFECTIVE TALKS"*
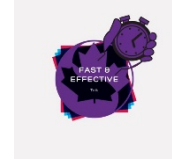
## Friday, Oct 29, 2021 | 11:00 AM - 12:00 PM

## KEYNOTE 1: Neural circuits underlying sleep structure and functions
## Dr. Antoine Adamantidis, University of Bern, Bern, Switzerland

LEARNING OBJECTIVES:
After active engagement in this session, participants will better be able to :
LEARNING OBJECTIVE 1:  Apply current assessments on the basic mechanisms of sleep in the mammalian brain to patient care.
LEARNING OBJECTIVE 2: Evaluate applicability of experimental diagnostics of sleep in rodent models to patient care.
LEARNING OBJECTIVE 3: Describe and explain how cellular mechanisms underlying brain plasticity during sleep and their contributions to goal-directed behaviors.

SESSION DESCRIPTION:  Brain activity during sleep is characterized by circuit-specific oscillations, including slow waves, spindles, sharp-wave ripples or theta, that are nested in thalamocortical or hippocampus networks, respectively. However, the activity of other brain circuits is strongly modulated during sleep states. A major challenge is to determine the neural mechanisms underlying these activities and their functional implications. In this lecture, I will summarize our work on the dissection of the neural circuits underlying sleep-wake control, sleep oscillations and their relevance to brain plasticity associated with sleep, and discuss their relevance to the elaboration of goal-directed behaviors including feeding and emotional processing.

Friday, Oct 29, 2021 | 11:00 AM - 12:00 PM

KEYNOTE 2: Understanding and treating sleep problems in children with and without neurodevelopmental disorders
Dr. Penny Corkum, Dalhousie University, Halifax, Canada

LEARNING OBJECTIVES:
After active engagement in this session, participants will better be able to :
LEARNING OBJECTIVE 1:  Compare and contrast the types of sleep problems in children with neurodevelopmental disorders and assess how these are similar and different to sleep problems in neurotypical children.
LEARNING OBJECTIVE 2: Use experimental sleep manipulation research to better define the causal relationship between poor sleep and daytime functioning in children.
LEARNING OBJECTIVE 3: Utilize eHealth sleep intervention development to modify for a transdiagnostic intervention, and explore options for sustainability.

SESSION DESCRIPTION:  Over the past 25 years Dr. Corkum has conducted empirical studies to better our understanding of the nature of sleep problems, particularly insomnia, in children with neurodevelopmental disorders (especially ADHD) compared to their neurotypical peers. A series of sleep manipulation studies underscored the pervasive and significant impact that poor sleep can have on daytime functioning for all children. These results, along with the extant literature, highlighted the need for accessible and effective interventions. To this end, a pan-Canadian team of pediatric sleep researchers led by Dr. Corkum developed and evaluated the Better Nights, Better Days (BNBD) program. A series of studies were conducted and found that this program could be modified, in a transdiagnostic manner, to meet the needs of families of children with a range of neurodevelopmental disorders. The development process for the Better Nights, Better Days for Neurodevelopmental Disorders (BNBD-NDD) will be described along with preliminary outcome data from a Canada wide randomized controlled trial. The presentation will conclude with recommendations for developing sustainable ways to sustain these eHealth programs so that they are accessible to families across Canada, especially during the COVID-19 crisis.

Friday, Oct 29, 2021 | 12:00 PM - 12:30 PM
Lunch Break

Friday, Oct 29, 2021 | 12:30 - 2:00 PM
SYMPOSIUM 1: Sleep, emotions and mood disorders during the COVID 19
Pandemic across Countries and Populations
CHAIRPERSON: *Dr. Veronica Guadagni*
PRESENTERS:
**Dr. Veronica Guadagni,** Cumming School of Medicine, University of Calgary, Canada
**Title:** *Sleep, Emotions and Mental Health during the COVID 19 Pandemic.*
**Dr. Anna L. Mackinnon,** Faculty of Arts, Department of Psychology, University of Calgary, Canada
**Title:** *Sleeping for Two: Preliminary RCT findings of CBT for Insomnia during Pregnancy.*
**Claire Donnici,** Neuroscience Program; University of Calgary, Canada
**Title:** *Links between prenatal distress, infant brain structure and function, and infant sleep patterns.*
**Dr. Rodolfo Rossi,** Department of Systems Medicine, University of Rome Tor Vergata
Title: *Sleep disturbances and stress-related disorders in healthcare workers during the COVID-19 pandemic in Italy.*
**Dr. Tony Cunningham,** Beth Israel Deaconess Medical Center, Harvard Medical School, Boston College, Boston, USA
**Title:** *The global impact of COVID19 and social distancing on sleep, stress, and mood.*
DESCRIPTION: This symposium will bring together a group of speakers who will report on recent data collected in North America, Italy, and from around the globe analyzing changes in subjective sleep quality, symptoms of insomnia, mood and emotional processes in different populations. The first speaker (Dr. Guadagni) will focus on the relationship between poor quality of sleep and empathic responses during the pandemic. The role of depression and anxiety symptoms will be considered as well as sex and gender. The second speaker (Dr. Mackinnon) will focus on pregnant women, a population that is particularly vulnerable to sleep problems and mood disorders. While these issues were heightened during the COVID-19 pandemic, preliminary results show a CBT intervention improves insomnia. The third speaker (Claire Donnici) will focus on how prenatal distress will impact infant brain structure and function and infant sleep patterns. Next, Dr. Rossi will focus on insomnia, anxiety and psychiatric symptoms in a sample of Italian Health Care workers. Finally, the last speaker (Dr. Cunningham) will discuss the global impact of the pandemic on sleep, stress, and mood as recorded by daily survey assessments across a 2-month period as both the threat of COVID-19 and isolation response measures increased.
LEARNING OBJECTIVES:
After active engagement in this session, participants will better be able to :
1.  Describe the negative effects of sleep loss due to natural disasters and isolation in general, and due to the COVID-19 pandemic in particular, on various aspects of emotional processing and mental health;
2.  Assess the role of biological sex, gender and ethnicity;
3.  Explore therapeutic interventions targeting sleep in vulnerable populations such as pregnant women.

Friday, Oct 29, 2021 | 12:30 - 2:00 PM
SYMPOSIUM 2: Sleep and Cognitive Impairment: An Evidence-Based Clinical Update
CHAIRPERSON: Mark I. Boulos, MD, MSc
PRESENTERS: *Nathan Cross[1], Andrew S.P. Lim, MD, MMSc[.2]; Mark I. Boulos, MD, MSc[.2]*
AFFILIATIONS: *1 Concordia University; 2 Department of Medicine, Division of Neurology, University of Toronto and Sunnybrook Health Sciences Centre, Canada*
DESCRIPTION: Cognitive impairment and dementia are associated with substantial healthcare expenditures and present a significant burden on healthcare providers and society. Dementia can result from a variety of neurodegenerative and vascular causes, however, other conditions also play a role. In particular, sleep disorders are now appreciated to be closely linked to neurogenerative dementia. The purpose of our symposium is to explore pathophysiological links between sleep disorders and cognitive impairment and explain the rationale for treating sleep disorders in patients with cognitive impairment. We will also describe ambulatory methods that can be used to detect sleep disorders in this patient population.
LEARNING OBJECTIVES:
After active engagement in this session, participants will better be able to :
1. Describe pathophysiological links between sleep disorders and cognitive impairment.
2. Explain the rationale for treating sleep disorders in patients with cognitive impairment.
3. Select appropriate ambulatory methods that can diagnose sleep disorders in individuals with cognitive impairment.

Friday, Oct 29, 2021 | 12:30 - 2:00 PM

## SYMPOSIUM 3: Multimodal neuroimaging during sleep: How can simultaneous recording advance our understanding of the sleeping human brain?

**CHAIRPERSON:** Makoto Uji[1]

**PRESENTERS:** Makoto Uji[1]; Andrew Bagshaw[2]; Laura Lewis[3]; Stuart Fogel[4]

**AFFILIATIONS:** *1 Concordia University; 2 University of Birmingham; 3 Boston University; 4 University of Ottawa; Royal's Institute for Mental Health Research*

**DESCRIPTION:** Simultaneous recording of multimodal neuroimaging data (i.e., EEG-fMRI, EEG-NIRS) is a promising and especially well-suited non-invasive approach to study sleep. By leveraging the wealth of information from high-temporal resolution EEG to inform techniques with high spatial resolution, such as fMRI, these combined methods can provide greater specificity and sensitivity to neural activity in the sleeping brain as compared to a single neuroimaging method (i.e., EEG or fMRI alone). This symposium will present novel findings from both basic science (e.g., memory reactivation, neural basis of cognitive functions) and clinical perspective (e.g., insomnia, mental health conditions, epilepsy) showcasing the advantages and challenges of employing simultaneous multimodal neuroimaging methods while advancing our understanding of how the sleeping brain works, the functions of sleep and the implications of insufficient sleep. Multimodal studies of sleep will enable us to push the frontiers of sleep science and unravel the mysteries of sleep.

**LEARNING OBJECTIVES:**

After active engagement in this session, participants will better be able to :

1. Identify the advantages of using simultaneous multimodal neuroimaging methods during sleep.
2. Recognize the challenges of conducting simultaneous multimodal neuroimaging sleep studies.
3. Evaluate how multimodal neuroimaging methods can help us better understand the underlying neurophysiological mechanisms of the sleeping human brain, sleep disorders and the functions of sleep.

Friday, Oct 29, 2021 | 12:30 - 2:00 PM
PRESENTATION: What every sleep provider needs to know about management of perioperative sleep disordered breathing?
*A Society of Anesthesia and Sleep Medicine (SASM) Session*
CHAIRPERSONS: Dr. Mandeep Singh, University of Toronto, Toronto, ON, Canada; Dr. Christine Won, Yale School of Medicine, New Haven, CT, USA
PRESENTERS: Dr. Satya Krishna Ramachandran and Beth Israel Deaconess, Medical Center, Boston, MA, USA
TITLE: *What is the association between obstructive sleep apnea and perioperative outcomes?*
PRESENTERS: Dr. Bhargavi Gali, Mayo Clinic, Cleveland, OH, USA; Dr. Dennis Auckley, MetroHealth, Cleveland, OH, USA
TITLE: *Look before you leap | SASM Guidelines on preoperative screening of patients with OSA*
PRESENTERS: Dr. Crispiana Cozovicz, Paracelsus Medical University, Muellner Hauptstrasse, Salzburg, Austria; Dr. Stavros Memtsoudis, Hospital for Special Surgery, New York, NY, USA
TITLE: *So what happened in the OR? | SASM Guidelines for intraoperative management of patients with OSA*
PRESENTERS: Panel discussion
TITLE: Perioperative pathways for OSA management: Challenges, and Pitfalls




Friday, Oct 29, 2021 | 2:00 PM - 2:15 PM
Break




Friday, Oct 29, 2021 | 2:15 - 03:45 PM
SYMPOSIUM 4: The Impact of the COVID-19 Pandemic on Sleep: A Contextual Perspective
CHAIRPERSON: *Jean-Philippe Gouin[1]*
PRESENTERS: *Marie-Hélène Pennestri[2]; Tetyana Kendzerska[3]; Véronique Massicotte[4]; Geneviève Forest[5]*
AFFILIATIONS: *1 Concordia University; 2 McGill University; 3 The Ottawa Hospital Research Institute / University of Ottawa; 4 Laval University; 5 UQO*
DESCRIPTION: Emerging data indicate that the psychosocial consequences of the COVID-19 pandemic are not equal across individuals. Contextual factors (e.g. living space, remote work, food and financial insecurity), developmental stage (e.g., adolescence, old age), as well as COVID-19-specific stressors (e.g., pre-existing chronic illness increasing risk for severe COVID-19, being in quarantine) likely influence the impact of the COVID-19 pandemic on sleep. The goal of this symposium will be to examine the similarities and differences in the sleep profiles of different populations during the COVID-19 pandemic as a function of these contextual factors. In addition to the comparison of the sleep profiles across diverse populations, the moderating effects of contextual factors, developmental stage, and/or COVID-19 specific stressors will be

examined within different samples. Forest will be presenting data on the sleep profiles of adolescents and young adults during the first wave of the pandemic. Kendzerska and Pennestri will be presenting cross-sectional sleep data from a large Canadian sample, including demographic, behavioural and psychological factors associated with sleep changes. Massicotte and Savard will be presenting longitudinal data describing the evolution of insomnia symptoms before and during the pandemic among breast cancer patients. Gouin will be presenting data on longitudinal changes in sleep during the pandemic among older adults. Collectively, data from these different samples will present a nuanced perspective of the impact of the COVID-19 pandemic on sleep and identify contextual factors increasing or decreasing risk for poor sleep during the pandemic.

LEARNING OBJECTIVES:

After active engagement in this session, participants will better be able to :

1. Describe the emerging and changing sleep profile during the COVID-19 pandemic
2. Evaluate the impact of contextual factors, developmental stage, and COVID-19 specific stressors on sleep during the SARS-cov-2 pandemic

## Friday, Oct 29, 2021 | 2:15 - 03:45 PM
## SYMPOSIUM 5: Precision Medicine in Obstructive Sleep Apnea: Are We Getting Close?

CHAIRPERSON: Najib Ayas[4]

PRESENTERS: *Ali Azarbarzin[1]; Atul Malhotra[2]; Diego Mazzotti[3]; Najib Ayas[4]*

AFFILIATIONS: *1 Harvard University; 2 UCSD; 3 University Kansas; 4 UBC*

DESCRIPTION: This symposium will summarize recent steps towards a precision medicine approach to obstructive sleep apnea. It is being increasingly recognized that OSA is a heterogeneous disease. Patients may have varying pathophysiologic pathways to disease, and differing susceptibilities to OSA-related complications such as cardiovascular disease. Understanding this heterogeneity may eventually help to offer more precise therapies to patients. In this symposium, we will discuss how physiologic endotyping, symptom clusters, biomarkers, and advanced PSG metrics may help to classify and risk stratify patients with OSA.

LEARNING OBJECTIVES:

After active engagement in this session, participants will better be able to :

1. Describe the heterogeneity of OSA in terms of physiologic endotypes and long term health complications.
2. Evaluate how symptom clusters, advanced PSG metrics, and biomarkers may eventually be helpful in advancing a precision approach to care.

## Friday, Oct 29, 2021 | 2:15 - 03:45 PM
## SYMPOSIUM 6:  Sensory stimulation for manipulating sleep brain oscillations

CHAIRPERSON:  Aurore Perrault[1]

PRESENTERS:  *Aurore Perrault[1]; Elsa Juan[2]; Emily Coffey[1]; Guillaume Legendre[3]*

AFFILIATIONS*: 1 Concordia University; 2 University of Amsterdam; 3 University of Geneva*

DESCRIPTION:   The goal of this symposium is three-fold: first, we will present the functional relevance of using sensory stimulation to manipulate brain oscillations toward better sleep quality and/or better memory consolidation. Second, we will highlight novel methodological approaches using different sensory modalities (e.g., auditory, rocking, olfaction) during sleep. Finally, we will discuss possible relevance for the development of non-pharmacological therapies for individuals with chronic insomnia or for aging populations, who frequently suffer from decreased deep sleep, fragmented sleep and/or from memory impairment.

In the proposed series of talks, we will highlight an emerging sleep research direction that brings together uprising international senior and junior scientists hailing from Switzerland, Netherlands and Canada.

Elsa Juan (Talamini Lab, University of Amsterdam, Netherlands) will show how manipulating individual slow oscillations using a state-of-the-art closed-loop auditory stimulation procedure to reactivate neural memory representations might influence the presence and content of consciousness during NREM sleep and subsequently impact memory consolidation.

Emily Coffey (Coffey Lab, Concordia University, Canada) will discuss the impact of auditory stimulation on spindle activity and memory consolidation using MEG technique.

Aurore Perrault (Dang Vu Lab, Concordia University, Canada) will present how a rocking stimulation to sleep is not only good for babies but also for healthy adult sleepers and animals, and will show promising results on clinical populations such as individuals with insomnia complaints.

Guillaume Legendre (Schwartz Lab, University of Geneva, Switzerland) will demonstrate the positive impact of odors on sleep and uncover perceptual properties of odors that influence sleep architecture.

In sum, our symposium integrates novel results as well as methodological challenges across a range of sensory modalities, hence covering both basic and clinical human sleep research.

LEARNING OBJECTIVES:

After active engagement in this session, participants will better be able to :

1. Identify alternative non-invasive methods to manipulate brain oscillations.
2. Use sensory stimulations as appropriate to provide a synchronizing influence on neuronal activity within thalamocortical networks, and can generate more spindles and slow oscillations beneficial for sleep and memory.

Friday, Oct 29, 2021 | 2:15 - 03:45 PM
ORAL SESSION 1: Neural Control of Sleep and Wakefulness
DATE: 10/29/2021
START TIME: 2:15 PM END TIME: 3:45 PM
Session Moderator: Jimmy Fraigne, University of Toronto

### 1. Circuit control of theta oscillations during REM sleep

PRESENTING AUTHOR: *Taksokhan, Anita[3]*

CO-AUTHORS: *Fraigne, Jimmy[1]; Peever, John[1, 2]*
AFFILIATIONS: *1 Cell and Systems Biology, University of Toronto; 2 Physiology, University of Toronto; 3 University of Toronto*

### 2. Implication of GABAergic synaptic adhesion molecules in the regulation of sleep and wakefulness

PRESENTING AUTHOR: *Leduc, Tanya[1, 2]*

CO-AUTHORS: *Mongrain, Valérie[1,2]*
AFFILIATIONS: *1 Département de neurosciences, Université de Montréal, QC; 2 Centre d'études avancées en médecine du sommeil, Recherche – Centre intégré universitaire de santé et services sociaux du Nord-de-l'Île-de-Montréal, QC*

### 3. Rhynchophylline, a derivative of traditional Chinese medicine, modifies sleep in male and female mice

PRESENTING AUTHOR: *Ballester Roig, Maria Neus[1,2]*

CO-AUTHORS: *Leduc, Tanya[1,2];Dufort-Gervais, Julien[1];Maghmoul, Yousra[1, 3];Mongrain, Valérie[1, 2]*
AFFILIATIONS: *1 Center for Advanced Research in Sleep Medicine, Recherche CIUSSS-NIM, Montreal, QC; 2 Department of Neuroscience, Université de Montréal, Montreal, QC; 3 Department of pharmacology and physiology, Université de Montréal, Montreal, QC*

### 4. Role of sublaterodorsal tegmental nucleus GABA neurons in sleep-wake control

PRESENTING AUTHOR: *Lee, Hanhee[1]*

CO-AUTHORS: *Fraigne, Jimmy[1]; Peever, John[1]*
AFFILIATION: *1 University of Toronto*

### 5. Survival of the fittest: Long versus short sleep in Drosophila melanogaster in three separate environments

PRESENTING AUTHOR: *Harbison, Susan[1]*

CO-AUTHORS: *Singh, Akanksha[1]; Hansen, Nancy[1]; Serrano Negron, Yazmin [1]*
AFFILIATIONS: *1 National Heart Lung and Blood Institute*


Friday, Oct 29, 2021 | 3:45 PM - 4:00 PM
EXHIBIT HALL & BREAK

Friday, Oct 29, 2021 | 4:00 - 5:30 PM

## SYMPOSIUM 7: New Insights into Sleep Disordered Breathing in Selected Populations

**CHAIRPERSON:** Najib Ayas[1]

**PRESENTERS:** Andrew Lim[2]; Cheryl Laratta[4]; Rachel Jen[1]; Sushmita Pamidi[3]

**AFFILIATIONS***: 1 University of British Columbia; 2 Sunnybrook Health Sciences Centre, University of Toronto; 3 McGill University; 4 Division of Pulmonary Medicine - Department of Medicine, University of Alberta & Alberta Health Services; 5 University of British Columbia*

**DESCRIPTION:** Sleep disordered breathing (SDB) is a common under recognized disorder. Rates of SDB may be greater in particular populations, and may have unique health consequences or treatment considerations in them. The purpose of this symposium is to highlight recent advances with respect to SDB in four distinct areas. Specifically, we will discuss the potential impact of SDB on future risk of dementia and mild cognitive impairment, and discuss potential treatment options for SDB in them. We will also discuss the links between diabetes and sleep apnea, and potential impacts of treatment in aiding glucose control and other outcomes. Third, we will discuss unique issues related to SDB in patients with COPD, with a discussion of health effects and home ventilatory modes. Finally, we will discuss new insights into the diagnosis and treatment of patients with obesity hypoventilation.

### LEARNING OBJECTIVES:

After active engagement in this session, participants will better be able to :

1. Describe the unique aspects of SDB in patients with diabetes, COPD, obesity hypoventilation syndrome, and dementia.
2. Explain the links between diabetes and sleep apnea with potential impacts of treatments.

## SYMPOSIUM 8: Bringing the Sleep Laboratory to a Patient's Home

**CHAIRPERSON:** Mark Boulos[1]

**PRESENTERS:** Brian Murray[1]; Cathy Goldstein[2]; Houman Khosravani[1]

**AFFILIATIONS***: 1 Division of Neurology, University of Toronto and Sunnybrook Health Sciences Centre; 2 University of Michigan*

**DESCRIPTION:** Sleep disorders are common in the general population, however, despite effective management strategies, they remain under-diagnosed and under-treated. A technologist-monitored, overnight sleep study in a sleep laboratory (polysomnography) is the gold standard for diagnosing sleep disorders, but high costs, lengthy wait times and patient inconvenience frequently prohibit assessments. Significant technical advances have enabled ambulatory sleep devices to serve as potentially cost-effective and more accessible alternatives to full in-laboratory polysomnography for the detection of sleep disorders. The purpose of our symposium is to examine advances in technologies used for the ambulatory detection of sleep disorders, as well as discuss technical limitations, legal and privacy issues associated with their use.

### LEARNING OBJECTIVES:

After active engagement in this session, participants will better be able to :

1. Describe advances in artificial intelligence and machine learning that can facilitate detection of sleep disorders.
2. Discuss the value and limitations of readily available consumer sleep monitoring devices.
3. Describe privacy and legal concerns associated with the use of ambulatory sleep devices.

## ORAL SESSION 2: Insomnia: Updates on Treatments
DATE:  10/29/2021
START TIME:  4:00 PM END TIME:  5:30 PM
Session Moderator:  Judith Davidson, Queens University

### 1. Effectiveness and Safety of the Dual Orexin Receptor Antagonist Lemborexant in Subjects Previously Treated with Placebo for 6 Months

PRESENTING AUTHOR:  Moline, Margaret [4]
CO-AUTHORS: Yardley, Jane [1],Inoue, Yuichi [2]; Pinner, Kate[1]; Perdomo, Carlos[3]; Filippov, Gleb[3]; Kubota, Naoki [4]; Moline, Margaret [4]
AFFILIATIONS:  1 Eisai Ltd., Hatfield, UK.; 2 Tokyo Medical University; 3 Eisai Inc., Woodcliff Lake, NJ; 4 Eisai Co., Ltd, Tokyo, Japan

### 2. Effects of cognitive-behavioral therapy for insomnia on sleep misperception in chronic primary insomnia

PRESENTING AUTHOR: Perrault, Aurore A.[1,2]
CO-AUTHORS: Maltezos, Antonia[1]; Gong, Kirsten[1]; Hillcoat, Alexandra[1]; McCarthy, Margaret[1,3]; Smith, Dylan[1]; Pomares, Florence B.[1,2,3]; Gouin, Jean-Philippe[2,3,4]; Dang-Vu, Thien Thanh[1,2,4]
AFFILIATIONS:  1 Sleep, Cognition and Neuroimaging Lab, Department of Health, Kinesiology and Applied Physiology & Center for Studies in Behavioral Neurobiology, Concordia University, Montreal, Quebec, Canada; 2 Centre de Recherche de l'Institut Universitaire de Gériatrie de Montréal, CIUSSS Centre-Sud-de-l'Ile-de-Montréal, Québec, Canada; 3 Stress, Interpersonal Relationship and Health Lab, Department of Psychology & Centre for Clinical Research in Health, Concordia University, Montreal, Quebec, Canada; 4 PERFORM Center, Concordia University, Montreal, Quebec, Canada

### 3. Preliminary report on the efficacy of behavioral therapy for insomnia in shift work disorder: a randomized control trial

PRESENTING AUTHOR: Vallières, Annie[1]
CO-AUTHORS:  Garnier, S.[1]; Pappathomas, A.[1]; Mérette, C.[1]; Bastien, C.H.[1]
AFFILIATION:  1 Université Laval

### 4. Video-Conference Delivery Of Cognitive Behavioural Therapy For Insomnia During the COVID-19 Pandemic: Comparison of Pre-Pandemic and Pandemic Cohorts

PRESENTING AUTHOR: Stenstrom, Philippe[1]
CO-AUTHORS:  La Rocque, Cherie[1] ; Araújo, Taís[1]; Denesle, Régine[1]
AFFILIATIONS:  1 HALEO Clinic

## ORAL SESSION 3: Sleep Across the Lifespan

DATE: 10/29/2021
START TIME: 4:00 PM END TIME: 5:30 PM
Session Moderator: Stuart Fogel, University of Ottawa

### 1. NREM sleep fast delta activity is a more sensitive marker of age-related changes in homeostatic sleep pressure than slow delta in mice

PRESENTING AUTHOR: *Dubé, Jonathan[3]*

**CO-AUTHORS**: *Lahmimsi, Hamza[1]; Timofeev, Igor [2]; Lina, Jean Marc[3]; Carrier, Julie[4]; Bukhtiyarova, Olga[2]; Soltani, Sara[2]; Mongrain, Valérie[5]*

**AFFILIATIONS**: *1 McGill University; 2 CERVO Brain Research Center - Laval University; 3 Centre d'études avancées en médecine du sommeil - Hôpital du Sacré-Coeur de Montréal; 4 Département de psychologie, Université de Montréal; 5 Departement de neurosciences, Université de Montréal*

### 2. The lost benefit of sleep for memory trace consolidation: Impact of age

PRESENTING AUTHOR: *Toor, Balmeet[1]*

**CO-AUTHORS**: *Van Den Berg, Nicholas[1]; Pozzobon, A.[1] ; Stewart, M[1] ; Ray, L.B.[1] ; Fang, Zhuo [1] ; Toor, H[1] ; Fogel, S.M.[1,2,3]*

**AFFILIATIONS**: *1 School of Psychology, University of Ottawa, Ottawa, Canada; 2 Sleep Unit, The Royal's Institute of Mental Health Research, University of Ottawa, Ottawa, Canada; 3 University of Ottawa Brain and Mind Institute, University of Ottawa, Ottawa, Canada*

### 3. Feasibility testing of the ABCs of SLEEPING for Babies mobile application as an intervention to improve sleep in infants aged 6 to 12 months

PRESENTING AUTHOR: *Keys, Elizabeth[1]*

**CO-AUTHORS**: *Corkum, Penny[2]; Keating, Sarah[2]; Weiss, Shelly[3]*

**AFFILIATIONS**: *1 University of British Columbia; 2 Dalhousie University; 3 The Hospital for Sick Children/University of Toronto*

### 4. Safety and Efficacy of Lemborexant Over the Long-term in Subjects with Irregular Sleep-Wake Rhythm Disorder and Alzheimer's Disease Dementia

PRESENTING AUTHOR: *Moline, Margaret[1]*

**CO-AUTHORS**: *Cheng, Jocelyn Y.[1]*

**AFFILIATIONS**: *1 Eisai Inc., Woodcliff Lake, NJ*

### 5. Long-term Efficacy and Safety of Lemborexant Versus Placebo For the Treatment of Insomnia in Elderly Adults

PRESENTING AUTHOR: *Moline, Margaret[1]*

**CO-AUTHORS**: *Inoue, Yuichi[2]; Pinner, Kate[3]; Perdomo, Carlos[1]; Filippov, Gleb[1]; Kubota, Naoki[4]; Yardley, Jane[3]*

**AFFILIATIONS**: *1 Eisai Ltd., Hatfield, UK.; 2 Tokyo Medical University; 3 Eisai Inc., Woodcliff Lake, NJ; 4 Eisai Co., Ltd, Tokyo, Japan*

## Friday, Oct 29, 2021 | 5:30 PM - 5:45 PM

Break

Friday, Oct 29, 2021 | 5:45 - 06:45 PM
KEYNOTE 3: Roles of astrocytes in modulating sleep/wake neurons: A novel mechanism for sleep homeostasis?
Dr. Kazue Semba, Dalhousie University, Halifax, Canada



LEARNING OBJECTIVES:
After active engagement in this session, participants will better be able to :
LEARNING OBJECTIVE 1: Explain that not only neurons but non-neuronal cells such as astrocytes, previously thought to be house-keeping cells in the brain, play important roles in regulating sleep and wake states.
LEARNING OBJECTIVE 2: Evaluate how astrocytes can fine-tune the activity of sleep/wake neurons and may help ensure proper homeostatic functioning of the sleep-wake cycle.

SESSION DESCRIPTION: Sleep is a vital biological process that is regulated by the brain and the body. A half century of research has delineated various neuronal systems involved in different aspects of sleep and wakefulness. Non-neuronal cells in the brain, however, have been increasingly recognized as playing important roles in various brain functions. This lecture will discuss how astrocytes, a major group of non-neuronal cells in the brain, can fine-tune the excitability of sleep/wake regulatory neurons in cell type-specific manner and depending on sleep history. Astrocytes may help ensure proper homeostatic functioning of the sleep–wake cycle.

Friday, Oct 29, 2021 | 5:45 - 06:45 PM
KEYNOTE 4: Sleep Health Disparities: Implications for Improving Population Health
Dr. Dayna A. Johnson, Emory University



LEARNING OBJECTIVES :
After active engagement in this session, participants will better be able to :
LEARNING OBJECTIVE 1: Evaluate sleep disparities that exist between racial/ethnic groups and lower socioeconomic status individuals and implications for overall health.
LEARNING OBJECTIVE 2: Explain how social determinants such as environmental factors at both in-home and neighborhood-levels contribute to sleep health disparities.
LEARNING OBJECTIVE 3: Apply novel approaches to address environmental stressors as an avenue to improve sleep health and overall health.

SESSION DESCRIPTION: Dr. Johnson will utilize a socio-ecological model to discuss racial and

socioeconomic disparities in sleep health and sleep disorders. She will discuss empirical research on the social and environmental determinants as well as the health consequences of insufficient sleep and sleep disorders in health disparate populations. Lastly, she will discuss sleep as a target to improve population health.

## Friday, Oct 29, 2021 | 6:45 PM - 8:00 PM
POSTER SESSION:  SEE ABSTRACT BOOK FOR FULL POSTER LIST AND DETAILS

## Friday, Oct 29, 2021 | 8:00 - 9:00 PM
## KEYNOTE 5: Maternal Sleep-Disordered Breathing during Pregnancy: Cardiometabolic Implications for Mother and Baby
## Dr. Sushmita Pamidi, McGill University

LEARNING OBJECTIVES :
After active engagement in this session, participants will better be able to :
LEARNING OBJECTIVE 1:  Identify the prevalence of SDB across the trimesters of pregnancy and its associated risk factors.
LEARNING OBJECTIVE 2: Summarize the current literature investigating the relationship between SDB in pregnancy and associated maternal and fetal cardiometabolic outcomes.
LEARNING OBJECTIVE 3: Evaluate studies investigating the treatment of SDB in pregnancy.

SESSION DESCRIPTION:  This talk will provide an overview of associations between cardiometabolic disease (eg. Gestational diabetes, hypertension, preeclampsia) and sleep-disordered breathing (SDB) during pregnancy. There will also be a review of key papers highlighting potential implications for the baby from SDB in pregnancy. Finally, an overview of treatment of SDB in pregnancy and health outcomes will be provided.

## Friday, Oct 29, 2021 | 8:00 - 9:00 PM
## ROUNDTABLE: Surveillance of Sleep Health in Canada
## PRESENTERS:  Karen Roberts, Public Health Agency of Canada
Given the recent emergence of sleep as a topic area of relevance for general public health promotion, this symposium lead by the Public Health Agency of Canada will seek to (1) introduce attendees to the new public health recommendations for sleep contained within the 24-Hour Movement Guidelines for all age groups, (2) describe the sleep content currently included within Canada's national health surveys for surveillance and research; and (3) present some of the most recent sleep data from these Canadian surveys.

**LEARNING OBJECTIVES:**

After active engagement in this session, participants will better be able to :

1. Describe sleep recommendations contained within Canada's 24-Hour Movement Guidelines for all age groups
2. Explore the availability of population-based data on sleep in Canada.
3. Examine national, population based estimates of: trends in sleep duration; sleep quality and sleep hygiene.

Saturday, Oct 30, 2021 | 8:30 - 10:00 AM | SYMPOSIUM:  SPONSORED BY EISAI
Saturday, Oct 30, 2021 | 10:00 – 11:00 AM | EXHIBIT HALL & SPONSOR "FAST AND EFFECTIVE TALKS"

## SCIENTIFIC PROGRAM: DETAILED - SATURDAY, OCTOBER 30, 2021

## Saturday, Oct 30, 2021 | 11:00 AM- 12:00 PM
## KEYNOTE 6: Sleep for Memory
## Dr. Jan Born, University of Tubingen, Germany



**LEARNING OBJECTIVES :**

After active engagement in this session, participants will better be able to :

LEARNING OBJECTIVE 1:  Explain how the formation of long-term memory is a major function of sleep.

LEARNING OBJECTIVE 2: Describe long-term memory during sleep that is established in an active systems consolidation process transforming episodic memory into schema-like memories that are more easily accessible.

LEARNING OBJECTIVE 3: Identify how infants and children sleep more and more deeply because they need to form more long-term memory.

SESSION DESCRIPTION:  Whereas memories are optimally encoded and retrieved when the brain is awake, the consolidation and formation of long-term memory requires an offline mode of processing as optimally established only during sleep. Based on evidence from behavioral and neurobiological studies in humans and rodents, I will consider the formation of long-term memory during sleep as an "active systems consolidation" process in which  the repeated neuronal replay of representations originating from the hippocampus during slow-wave sleep (SWS) leads to a gradual transformation and integration of representations in extrahippocampal, mainly neocortical networks. I will highlight three features of this process: (i) Hippocampal replay that, by capturing episodic memory aspects, drives consolidation of both hippocampus-dependent and non-hippocampus-dependent memory; (ii) brain oscillations hallmarking SWS

and rapid-eye movement (REM) sleep, respectively, which provide mechanisms to regulate both information flow across distant brain networks and local synaptic plasticity; and (iii) qualitative transformations of memories during sleep-dependent systems consolidation resulting in abstract schema-like representations. Here, I will emphasize the importance of sleep for memory transformation during early development.

## Saturday, Oct 30, 2021 | 11:00 AM - 12:00 PM
## KEYNOTE 7: Re-Thinking oral appliance therapy
## Dr. Fernanda Almeida, University of British Columbia

LEARNING OBJECTIVES :
After active engagement in this session, participants will better be able to :
LEARNING OBJECTIVE 1:  Explain the efficacy and adherence of oral appliance therapy.
LEARNING OBJECTIVE 2:  Describe patient-centered approaches in Dental Sleep Medicine.
LEARNING OBJECTIVE 3: Evaluate personalized sleep apnea treatments.

SESSION DESCRIPTION:  This lecture will cover the role of patient-centered approaches and P4 strategies with deeper focus on evaluating treatment efficacy and effectiveness. This session will enable attendees to re-think how they provide treatment to individuals with sleep apnea and personalize their patients' sleep apnea treatment.

## Saturday, Oct 30, 2021 | 12:00 – 12:15 PM
## EXHIBIT HALL & BREAK

## Saturday, Oct 30, 2021 | 12:15 PM - 1:45 PM
## SYMPOSIUM 9:  In the Wild:  Leveraging Technologies to Accelerate the Translation and Reach of Sleep and Circadian Science Into Real-Life Settings
CHAIRPERSON:  Anne Germain[1]
PRESENTERS:  Anne Germain[1]; Christopher Connaboy[2]; Daniel Taylor[3]; Rachel Markwald[4]
AFFILIATIONS:  *1 NOCTEM; 2 University of Pittsburgh; 3 University of Arizona; 4 NHRC*
DESCRIPTION: In this session, speakers will present findings from ongoing efforts aimed at leveraging and testing new technologies to support the translation of lab-based sleep and circadian science into large-scale, real-life applications. The symposium will cover specific

examples that demonstrate the potential and real impact of technology-supported strategies to support sleep health, from sleep optimization to sleep treatments, and across a variety of occupational, operational, and clinical settings. Challenges and opportunities for monitoring and managing sleep "in the wild" will also be discussed by each speaker.

LEARNING OBJECTIVES:
After active engagement in this session, participants will better be able to :
1. Identify gaps, adaptations, and opportunities to advance the translation of sleep and circadian science findings into a variety of occupational and clinical settings
2. Describe the unique strengths, limitations, and value added by novel sleep monitoring technologies when used in large-scale efforts "in the wild"
3. Detail different approaches to the expansion of synchronous and asynchronous sleep and fatigue management in occupational and clinical settings.

## Saturday, Oct 30, 2021 | 12:15 PM - 1:45 PM
## SYMPOSIUM 10: Sleep and dementia risk: identifying involved sleep characteristics and mechanisms

CHAIRPERSON: Andrée-Ann Baril[1]
PRESENTERS: Andrée-Ann Baril[1]; Andrew Lim[2]; Claire André[3]; Matthew Pase[4]
AFFILIATIONS: *1 Douglas Mental Health Institute, McGill University; 2 Sunnybrook Health Sciences Centre, University of Toronto; 3 Center for Advanced Research in Sleep Medicine, Université de Montréal; 4 Turner Institute for Brain and Mental Health, Monash University*
DESCRIPTION: Sleep disturbances emerged in recent years as a risk factor for neurodegeneration and cognitive decline. Because dementia and Alzheimer's disease remain incurable, understanding how sleep disturbances might contribute to neurodegenerative processes represent an important opportunity to modify the disease trajectory. In this symposium, we will highlight the epidemiological association between incident Alzheimer's disease dementia and sleep disturbances. How specific sleep stages, sleep fragmentation and sleep disorders associate with dementia risk will be discussed. To explore further explore the role of sleep disturbances in the development of neurodegenerative diseases, we will discuss key mechanistic hypotheses. We will discuss how sleep characteristics are associated with neurodegenerative pathology. Indeed, this program will address how neuroimaging biomarkers, commonly used within the dementia field of research, have furthered our understanding of the processes ongoing in individuals with sleep disturbances, and especially sleep apnea. We will also address the interplay between low-grade chronic inflammation, sleep and neurodegeneration. This program encompasses fields of neurology, epidemiology, dementia, sleep medicine, immune response and biomarkers.
## LEARNING OBJECTIVES:
After active engagement in this session, participants will better be able to :
1. Identify sleep characteristics that are associated with a higher dementia risk.
2. Explain how sleep disturbances can impact Alzheimer's disease pathological processes.
3. Describe the role of inflammation in the sleep-dementia relationship.

Saturday, Oct 30, 2021 | 12:15 PM - 1:45 PM
## ROUNDTABLE: *Mind the Gap* in Child & Adolescent Mental Health: The Interplay between Medication Treatment and Sleep

CHAIRPERSON: Osman Ipsiroglu[4]

PRESENTERS: Anthony Bailey[1]; Bruce Carleton[2]; Oliviero Bruni[3]; Osman Ipsiroglu[4]; Penny Corkum[5]

AFFILIATIONS: *1 Department of Psychiatry, University of British Columbia; 2 Departments of Pharmacology and Pediatrics, University of British Columbia; 3 Dept of Developmental and Social Psychology; Sapienza University; 4 Department of Pediatrics, BCCH Research Institute, University of British Columbia; 5 Department of Psychology, Dalhousie University*

DESCRIPTION: Over the last years, several articles have contributed to the growing body of evidence attesting to the potential of treatment with psychotropic medication among children and adolescents to result in iatrogenic harm. Children and youth with neurodevelopmental disorders (NDDs) are among those most vulnerable to the long-term negative consequences of inappropriate use of psychotropic medications to treat sleep problems.

In addition to the challenging symptoms that disrupt and complicate their lives, this population typically, experiences underlying sleep problems, which often remain unrecognized and untreated. The timely and accurate diagnosis of chronic sleep disturbances is further complicated by their early onset, which aggravates challenging daytime presentations. Clinical research suggests that up to 60% of children with disruptive daytime behaviors may be secondary to sleep problems that are impacted by prescribing practices.

With the wide spectrum of pharmacologic therapies currently available on the market, selecting a medication treatment in context with non-pharmacological interventions that benefits the patient, while avoiding medication-related harm must become an urgent priority. In this context, pediatric sleep medicine is becoming the interface between different disciplines. Moving forward, we need a shared conceptual framework, as presented with a logic model, and harmonization of clinical outcome measures that help to re-visit diagnostic interconnections, functional diagnoses, which might drive medication practices, as well as medication and non-medication-based intervention strategies.

## LEARNING OBJECTIVES:
After active engagement in this session, participants will better be able to :
1. Explain the dimension of overmedication and polypharmacy in Canada.
2. Describe how overshadowed sleep disturbances contribute to overmedication and polypharmacy.
3. Identify sleep in context of treatment for NDDs.

## PRESENTIONS:
- Anthony Bailey - Challenges in recognizing ASD from ADHD in early childhood
- Bruce Carleton - BC Pharmaepidemiology Data
- Oliviero Bruni - How to Harmonize Sleep related Outcome Measures in RCTs
- Osman Ipsiroglu - The IPSA Quality Improvement Initiative
- Penny Corkum - Impact of Pharmacological Treatment for ADHD on Sleep in Children

## ORAL SESSION 4: Daytime Sleepiness and Hypersomnolence Disorders

DATE: 10/30/2021
START TIME: 12:15 PM          END TIME: 1:45 PM
Session Moderator: Brian Murray, Sunnybrook Hospital

### 1. Cataplexy-Free Days in a Phase 3, Placebo-Controlled, Double-Blind, Randomized Withdrawal Study of Lower-Sodium Oxybate in Adults With Narcolepsy With Cataplexy

PRESENTING AUTHOR: *Foldvary-Schaefer, Nancy[3]*

CO-AUTHORS: *Bogan, Richard K.[4] ; Šonka, Karel[5] ; Thorpy, Michael J.[6]; Dauvilliers, Yves[1,2]*

AFFILIATIONS: *1 Sleep and Wake Disorders Centre, Department of Neurology, Gui de Chauliac Hospital, Montpellier, France; 2 University of Montpellier, INM INSERM, Montpellier, France; 3 Cleveland Clinic Lerner College of Medicine, Cleveland, OH, USA; 4 University of South Carolina School of Medicine, Columbia, SC, USA; 5 First Faculty of Medicine, Charles University and General University Hospital, Prague, Czech Republic; 6 Albert Einstein College of Medicine, Bronx, NY, USA*

### 2. Accurately Screening Obstructive Sleep Apnea During Wakefulness is Possible

PRESENTING AUTHOR: *Elwali, Ahmed[1]*

CO-AUTHORS: *Moussavi, Zahra[1,2]*

AFFILIATIONS: *1 Biomedical Engineering, University of Manitoba, Winnipeg, Canada; 2 Electrical and Computer Engineering, University of Manitoba, Winnipeg, Canada*

### 3. Driving Drowsy: A single night of mild sleep restriction negatively impacts EEG and driving behaviour

PRESENTING AUTHOR: *Gibbings, A. [1,2]*

CO-AUTHORS: *Ray, L.B..[1]; Shahidi, Zandi [1,3]; Comeau, F.J.E.[3]; Fogel, S.M.[1,2,4]*

AFFILIATIONS: *1 Sleep Research Unit, The Royal's Institute of Mental Health Research, Ottawa, K1Z 7K4, Canada; 2 School of Psychology, University of Ottawa, Ottawa, K1N 6N5, Canada; 3 Alcohol Countermeasures Systems Corp (ACS), Toronto, M9W 6J2, Canada; 4 University of Ottawa Brain & Mind Research Institute, Ottawa, K1H 8M5, Canada*

### 4. Sex Differences in Obstructive Sleep Apnea after Stroke or TIA

PRESENTING AUTHOR: *Dharmakulaseelan, Laavanya[1,2,3]*

CO-AUTHORS: *Black, Sandra E. [1,2,3] ; Swartz, Richard H. [1,2,3] ; Murray, Brian J. [1,2,3] ; Boulos, Mark I. I. [1,2,3]*

AFFILIATIONS: *1 Hurvitz Brain Sciences Research Program, Sunnybrook Research Institute, Sunnybrook Health Sciences Centre, University of Toronto, Toronto, Ontario, Canada; 2 Department of Medicine, Division of Neurology, University of Toronto, Toronto, Ontario, Canada; 3 Sleep Laboratory, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada*

### 5. Association of Idiopathic Intracranial Hypertension with Obstructive Sleep Apnea

PRESENTING AUTHORS: *Bingeliene, Arina[1,2,3]*

CO-AUTHORS: *Tyndel, Felix[1,2,3] ; Jairam, Trevor ; Girgis, Patrick[1,2,3] ; Sundaram, Arun[1,2,3], Murray, Brian[1,2,3]; Boulos, Mark I.[1,2,3]*

AFFILIATIONS: *1 Hurvitz Brain Sciences Research Program, Sunnybrook Research Institute, Sunnybrook Health Sciences Centre, University of Toronto, Toronto, Ontario, Canada; 2 Department of Medicine, Division of Neurology, University of Toronto, Toronto, Ontario, Canada; 3 Sleep Laboratory, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada*

## Saturday, Oct 30, 2021 | 1:45 – 2:15 PM
## EXHIBIT HALL & LUNCH BREAK

Saturday, Oct 30, 2021 | 2:15 PM - 3:45 PM
## SYMPOSIUM 11:  Sleep health disparities during COVID19 pandemic: A health equity issue

CHAIRPERSON:  Guido Simonelli[1]

PRESENTERS:  Guido Simonelli[1]; Alberto Ramos[2]; Chandra Jackson[3]; Molly Billings[4]

AFFILIATIONS*: 1 Université de Montréal; 2 University of Miami Miller School of Medicine; 3 Epidemiology Branch, National Institute of Environmental Health Sciences, National Institutes of Health, Department of Health and Human Services; 4 University of Washington*

DESCRIPTION: The COVID-19 pandemic is disproportionally affecting disadvantaged populations and racial/ethnic minorities, who are already disproportionately burdened by insufficient sleep, poor sleep quality, and sleep disorders such as insomnia and sleep apnea. Differences in one or more dimensions of sleep health on a consistent basis that adversely affect designated disadvantaged populations and racial/ethnic minorities are often referred as sleep health disparities. Sleep health disparities can be largely explained by a complex interplay of social and physical environmental factors and appear to share many of the same determinants and causal pathways observed for health outcomes with well-known disparities. In this symposium we will provide an overview of sleep health disparities, including sources and pathways for these disparities, and we will discuss how these disparities may be amplified in the context of the COVID-19 pandemic.

LEARNING OBJECTIVES:

After active engagement in this session, participants will better be able to :

1. Describe the social and environmental factors that lead to sleep health disparities.
2. Explain the distal health impacts of sleep health disparities.
3. Identify how the COVID19 pandemic may exacerbate existing sleep health disparities.


Saturday, Oct 30, 2021 | 2:15 PM - 3:45 PM
## SYMPOSIUM 12:  Interrogation of new sleep/wake regulating circuits

CHAIRPERSON:  Jimmy Fraigne[1]

PRESENTERS:  Jimmy Fraigne[1]; Ada Eban-Rothschild[2]; Carolina Gutierrez-Herrera[3]; Daniel Kroeger[4]

AFFILIATIONS:  *1 Dept. of Cell and Systems Biology, University of Toronto; 2 University of Michigan; 3 University of Bern, Inselspital Bern; 4 Auburn University*

DESCRIPTION: The past decade has seen a revolution in neuroscience in our ability to interrogate neural circuits and neurotransmitter systems through the development of methods to record and manipulate specific populations of cells and circuits. In this symposium, we will present four recently described circuits that control sleep-wake behaviors, and provide a fuller picture of the neural circuits that generate vigilant states. In addition, this symposium will highlight how dissection of these circuits will enlighten our understanding of disorders where sleep-wake states are disrupted.

**LEARNING OBJECTIVES:**
After active engagement in this session, participants will better be able to :
1. Describe the methodologies used to dissect sleep-wake neural circuit (e.g., optogenetics, chemogenetics and calcium imaging) and how they can be useful in sleep medicine.
2. Identify how wake behaviors are control by specific neural circuits.
3. Identify the neural circuits that control vigilant states like REM and NREM sleep, and their characteristics.

## ORAL SESSION 5: Sleep and Neurodegenerative Diseases
DATE:  10/30/2021
START TIME:  2:15 PM  END TIME:  3:45 PM
Session Moderator:  Nicole Gervais, Rotman Research Institute

### 1. Disturbed sleep and reduced hippocampal integrity at midlife: Implications for AD risk in women with early surgical menopause

PRESENTING AUTHOR: *Gervais, Nicole[1,2]*
CO-AUTHORS:  *Brown, Alana[2] ; Gravelsins, Laura[2] ; Olsen, Rosanna[1] ; Laird, Kaz[2] ; Reuben, Rebekah[2] ; Perovic, Mateja[2] ; Karkaby, Laurice[2] ; Gosselin, Nadia[3]  ; Grady, Cheryl[1] ; Einstein, Gillian[1,2,4]*
AFFILIATIONS:  *1 Rotman Research Institute at Baycrest Health Sciences and University of Toronto; 2 University of Toronto; 3 Département de psychologie, Université de Montréal; Centre d'études avancées en médecine du sommeil, CIUSSS Nord-de-l'Île-de-Montréal; 4 Tema Genus at Linköping University*

### 2. Signs and Symptoms of Irregular Sleep Wake Rhythm Disorder (ISWRD) Reported Directly from Patients with Dementia and Their Caregivers

PRESENTING AUTHOR: *Pokrzywinski, Robin[1]*
CO-AUTHORS:  *Abel, Cristina[1] ; Lenderking, William R.[1]; Yardley, Jane[2] ; Cheng, Jocelyn Y[3]; Moline, Margaret[3]*
AFFILIATIONS:  *1 Evidera, Bethesda, MD; 2 Eisai Ltd., Hatfield, UK; 3 Eisai Inc., Woodcliff Lake, NJ*

### 3. Endogenous Expression Levels of α-Synuclein as a Cellular Vulnerability in REM Sleep Behaviour Disorder

PRESENTING AUTHOR: *Dugan, Brittany[1]*
CO-AUTHORS: *Fraigne, Jimmy[1]; Peever, John[1]*
AFFILIATIONS:  *1 University of Toronto*

### 4. Reduced spindle density is associated with cognitive decline in individuals with moderate-severe OSA

PRESENTING AUTHOR: *Guadagni, Veronica[1,2,3,5]*
CO-AUTHORS:  *Pun, M. [1,2,3] ; Almousawi, A.[1,2,3] ; Yang, K.[1,2,3] ; Hanly, P.J.[7,8] ; Younes, M.[9] ; Poulin, M.[1-6]*
AFFILIATIONS:  *1 Department of Physiology & Pharmacology, Cumming School of Medicine, University of Calgary, Calgary, Alberta, Canada; 2 Hotchkiss Brain Institute, Cumming School of Medicine, University of Calgary, Calgary, Alberta, Canada; 3 Department of Clinical Neurosciences, Cumming School of Medicine, University of Calgary, Calgary, Alberta, Canada; 4 Libin Cardiovascular Institute of Alberta, Cumming School of Medicine, University of Calgary, Calgary, Alberta, Canada; 5 O'Brien Institute for Public Health, Cumming School of Medicine, University of Calgary, Calgary, Alberta, Canada; 6 Faculty of Kinesiology, University of Calgary, Calgary, Alberta, Canada; 7Department of Medicine, Cumming School of Medicine, University of Calgary, Calgary, AB, Canada; 8Sleep Centre, Foothills Medical Centre, Calgary, AB, Canada; 9 Sleep Disorders Centre, Winnipeg, Manitoba, Canada*

5. The effects of exercise on sleep quality in persons with Parkinson's Disease: a systematic review with meta-analysis.
PRESENTING AUTHOR: *Cristini, Jacopo[1,2]*

CO-AUTHORS: *Weiss, Maxana[1,2]; de Las Heras, Bernat[1,2]; Medina-Rincón, Almudena[1,3]; Dagher, Alain[4]; Postuma, Ronald B.[4]; Huber, Reto[5]; Doyon, Julien[4]; Rosa-Neto, Pedro[6]; Carrier, Julie[7]; Amara, Amy W.[8]; Roig, Marc[1,2]*

AFFILIATIONS: *1 Memory and Motor Rehabilitation Laboratory (MEMORY-LAB), Feil and Oberfeld Research Centre, Jewish Rehabilitation Hospital, Montreal Center for Interdisciplinary Research in Rehabilitation (CRIR), Laval, Quebec, Canada ; 2 School of Physical and Occupational Therapy, Faculty of Medicine, McGill University, Montreal, Quebec, Canada. ; 3 Universitat Internacional de Catalunya, Barcelona, Catalonia, Spain. ; 4 Montreal Neurological Institute, McGill University, Montreal, Quebec, Canada. ; 5 Child Development Center, University Children's Hospital and Department of Child and Adolescent Psychiatry and Psychotherapy, Psychiatric Hospital, University of Zurich. 6 Department of Psychiatry, McGill University, Montreal, Quebec, Canada. ; 7 Université de Montréal, Montréal, Quebec, Canada. ; 8 University of Alabama at Birmingham, Alabama, USA.*

# ORAL SESSION 6: Sleep, Emotional Regulation and Insomnia
DATE: 10/30/2021
START TIME: 2:15 PM END TIME: 3:45 PM
Session Moderator: Anne Germain, NOCTEM

## 1. A Systematic Review of Insomnia Symptoms in School Teachers
PRESENTING AUTHOR: *Jackowich, Robyn [1]*

CO-AUTHORS: *Gierc, Madelaine[1]; Davidson, Judith[1]*

AFFILIATIONS: *1 Queen's University*

## 2. An open-label study on sleep spindle density in people with depression after 8 weeks of melatonin agonist intake
PRESENTING AUTHOR: *Porteous, Meggan[1,2]*

CO-AUTHORS: *Fogel, S.M.[1,2]; Ray, L.B.[1,2] ; Hickie, Ian[3] ; Carpenter, Joanne[3] ; Louati, Khaoula[2] ; Robillard, Rebecca[1,2]*
AFFILIATIONS: *1 Sleep Research Unit, The Royal Institute for Mental Health Research, Ottawa, ON, Canada; 2 School of Psychology, Faculty of Social Sciences, University of Ottawa, Ottawa, ON, Canada; 3 Brain & Mind Centre, the University of Sydney, Camperdown, NSW, Australia*

## 3. Dream Enactment Behavior and Trauma-associated Sleep Disorder in those Experienced Childhood Maltreatment: a Population-based Study in the CLSA
PRESENTING AUTHOR: *Yao, Chun[1]*

CO-AUTHORS: *Yao, Chun[1,2] ; Baltzan, M.[2-6] ; Pelletier, Amélie[2,7]; Postuma, Ronald B.[2,7,8]*
AFFILIATIONS: *1 Integrated Program in Neuroscience, McGill University; 2 Research Institute of the McGill University Health Centre; 3 Faculty of Medicine, Department of Epidemiology Biostatistics and Occupational Health, McGill University; 4 Centre Intégré Universitaire des Soins et Services Sociaux du Nord de L'île de Montréal; 5 Centre Intégré Universitaire des Soins et Services Sociaux du Centre-ouest de L'île de Montréal, Mount Sinai Hospital; 6 Institut de Médecine du Sommeil ; 7 Research center of the Hôpital du Sacré-Coeur de Montréal; 8 Department of Neurology and Neurosurgery, McGill University.*

## 4. The prevalence and predictors of postpartum anger and depression in the context of maternal-infant sleep problems.
PRESENTING AUTHOR: *Ou, Christine[1]*
CO-AUTHORS: *Hall, Wendy[1]; Rodney, Patricia[1]; Stremler, Robyn[2]*
AFFILIATIONS: *1 School of Nursing, University of British Columbia; 2 Lawrence Bloomberg Faculty of Nursing, University of Toronto*

Saturday, Oct 30, 2021 | 3:45 - 4:00 PM
EXHIBIT HALL & BREAK


Saturday, Oct 30, 2021 | 4:00 - 5:00 PM
POSTER SESSION: SEE ABSTRACT BOOK FOR FULL POSTER LIST AND DETAILS


Saturday, Oct 30, 2021 | 5:00 - 06:00 PM
KEYNOTE 8: The mechanistic role of sleep in fear processes underlying anxiety disorders and PTSD
Dr. Sean Drummond, Monash University



LEARNING OBJECTIVES:
After active engagement in this session, participants will better be able to :
LEARNING OBJECTIVE 1: Describe the concepts of fear conditioning and fear inhibition.
LEARNING OBJECTIVE 2: Explain the data showing a link between REM sleep and fear inhibition.

SESSION DESCRIPTION: Abnormal fear processes are a hallmark feature of PTSD and almost all anxiety disorders. These disorders are also marked by characteristic sleep disruptions. Work in both animal and human models have linked these two clinical features, arguing sleep, especially REM sleep, is critical for intact fear inhibition. This talk will cover recent work in this area examining a potential mechanistic role for REM sleep in fear inhibition, including basic human, clinical, and pre-clinical models.

Saturday, Oct 30, 2021 | 5:00 - 06:00 PM
KEYNOTE 9: Light, Circadian Rhythms and Human Health
Dr. Helen Burgess, University of Michigan Medical School

LEARNING OBJECTIVES :
After active engagement in this session, participants will better be able to :
LEARNING OBJECTIVE 1:  Describe how light can affect circadian timing, mood and sleep.
LEARNING OBJECTIVE 2: Evaluate which properties of light are important to outcomes.
LEARNING OBJECTIVE 3: Identify how to best implement a morning light treatment at home.

SESSION DESCRIPTION:  Natural outdoor light and artificial indoor light can impact our mental and physical health. In this talk we will examine how light reaches the brain and can alter brain centers that regulate circadian (body clock) timing, sleep and mood. Specific properties of light such as intensity, wavelength and timing will be discussed. Individual differences in light sensitivity will also be covered. Lastly, we will examine current approaches to morning light treatment, and how morning light treatment can be used to improve health and reduce symptom burden in a variety of clinical disorders including chronic pain conditions, depression, and post-traumatic stress disorder.

Saturday, Oct 30, 2021 | 6:00 - 6:15 PM
EXHIBIT HALL & BREAK

Saturday, Oct 30, 2021 | 6:15 - 07:15 PM
CLOSING KEYNOTE BY 2021 CIHR-ICRH/CSS DISTINGUISHED LECTURER:
Pathophysiological Interactions Between Sleep Apnea And Fluid-retaining States:  A Two-way Street
Dr. T. Douglas Bradley, University of Toronto

LEARNING OBJECTIVES :
After active engagement in this session, participants will better be able to :
LEARNING OBJECTIVE 1:  Describe how fluid retention and overnight rostral fluid sift can contribute to the pathogenesis of obstructive and central sleep apnea.
LEARNING OBJECTIVE 2: Explain how preventing fluid retention can reduce severity of sleep apnea.
LEARNING OBJECTIVE 3: Identify how sleep apnea can worsen cardiovascular function in patients with heart failure, and that treating sleep apnea in such patients can improve cardiovascular function.

SESSION DESCRIPTION:  Obstructive and central sleep apnea (OSA and CSA, respectively) are much more common in subjects with fluid retaining states, such as heart and renal failure (HF and RF, respectively), than in those without these conditions. We found, in patients with HF, that the greater the overnight reduction in leg fluid volume (LFV), the greater the overnight increase in neck circumference, and the higher the obstructive apnea-hypopnea, index (AHI), and the greater the overnight reduction in LFV, the lower the nocturnal transcutaneous $PCO_2$, and the higher the central AHI. Thus nocturnal rostral fluid shift was involved in the pathogenesis of both OSA and CSA in HF.
We then performed ultrafiltration between dialyses sessions in patients with a combination of RF and SA. Removal of 2 litres of fluid reduced the AHI in both OSA and CSA by approximately 50%. We also showed in patients with a combination of coronary artery disease and SA, that exercise rehabilitation reduced LFV and the amount of overnight rostral fluid shift. This was accompanied by a fall in the AHI. These observations confirm that fluid retention and overnight rostral fluid shift contribute to severity of SA, and reducing fluid retention can alleviate SA.
Once present in patients with HF, SA causes a number of physiological disturbances that can increase morbidity and mortality. These include recurrent hypoxia and activation of the sympathetic nervous system, surges in blood pressure, oxidative stress and vascular endothelial dysfunction. In addition, in OSA, negative intrathoracic pressure is generated which reduces LV preload and increases LV afterload, both of which lead to an overnight reduction in stroke volume and cardiac output. Among patients with HF, small randomized trials demonstrate that treatment of co-existing OSA by CPAP, lowers sympathetic activity and blood pressure, and increases LV ejection fraction (LVEF) and cardiac vagal activity. However, whether treatment of

OSA in HF reduces morbidity and mortality remains to be determined.

Taken together, the above observations indicate that the pathophysiological interactions of HF and SA constitute a two-2way street. HF can predispose to, and influence the severity and type of sleep apnea via its effect of fluid retention and the pattern of nocturnal redistribution. On the other hand, once OSA or CSA is present, it can worsen cardiovascular function, morbidity and mortality. Consequently, my colleagues and I are testing the hypothesis that treating SA in patients with HF using adaptive servo-ventilation to will reduce morbidity and mortality in the Adaptive Servo-Ventilation for Treatment of Sleep Apnea in Heart Failure (ADVENT-HF) trial.

Saturday, Oct 30, 2021 | 7:15 - 08:00 PM
Conference Wrap-up, Awards (students), Prizes

# TECHNOLOGIST PROGRAM

**Friday, Oct 29, 2021 | 12:30 – 2:30 PM**
**2 HOUR WORKSHOP:**
1. Optimizing Mask Selection - A Glimpse of New Machine
   - Reviewing ResMed's mask portfolio and the importance of mask fitting
   - Sneak peak of the new AirSense 11 platform
2. Right Therapy for the Right Patient
   - Help the attendee in selecting which advanced modes of PAP therapy are best suited for which type of sleep-disordered breathing
   - Best practices for titrating advanced PAP modes
   - Identifying asynchronies and resolving them

**PRESENTERS:** Doug Scullion, RRT - Clinical Specialist ResMed; Lindsay McFarland, RRT - Clinical Specialist, ResMed

**Friday, Oct 29, 2021 | 2:30 – 3:30 PM**
**TITLE:** The Effects of Recreational Drugs on Sleep
**PRESENTER:** Dr. James MacFarlane, - Associate Professor of Pediatrics and Psychiatry, University of Toronto

**Friday, Oct 29, 2021 | 4:00 – 5:30 PM**
**TITLE:** The Role of Artificial Intelligence (AI) in Navigating Today's Greatest Challenges in Sleep Medicine
**PRESENTERS:** Chris Fernandez, EnsoData CEO and Co-Founder, Andrea Ramberg, RPSGT, CCSH, EnsoData Clinical Informaticist, and Cindy Braden EnsoData SVP of Sales
In this three-part presentation, our team will provide:
   - An introduction to AI for Sleep Medicine, from patient care to sleep science
   - Insight into the expanding role of the Sleep Technologist
   - How AI-assisted scoring supports sleep centers and clinicians as they navigate the changing landscape of sleep health
A short demonstration of EnsoSleep AI-assisted scoring will also be provided.

**Saturday, Oct 30, 2021 | 12:15 - 1:45 PM**
**90 MINUTE WORKSHOP:** Mask Selector, Navigating to the Right Mask the First Time
**PRESENTERS:** Ali Jalini, Philips Respironics

**Saturday, Oct 30, 2021 | 2:15 – 3:00 PM**
**TITLE:** What Are Medical Ethics?
**PRESENTER:** Michael Eden, BA(hon), RPSGT, RST - Assessment Specialist, The College of Physicians and Surgeons of Ontario

TECHNOLOGIST PROGRAM

## Saturday, Oct 30, 2021 | 3:00 – 3:45 PM
**TITLE:** Sleep and Athletes
**PRESENTER:** Dr. Jonathan Charest - Director of Athlete Sleep Services and Behavioral Sleep Medicine Specialist, Centre for Sleep and Human Performance
**DESCRIPTION:** Mental health symptoms and disorders are common among elite athletes. Mental health difficulties are inherent to physical health, as supported by the increased likelihood of physical injury and prolonged recovery period. In addition, the population of elite athletes is particularly susceptible to sleep inadequacies which is typically characterized by short sleep and poor sleep quality. With the well-known detrimental impact of inadequate sleep on athletic performances, a better understanding of the real-world scenario of elite athlete would be warranted.

## CONTINUOUS EDUCATION COURSES – THURSDAY, OCTOBER 28, 2021

As part of the 2021 Canadian Sleep Society Conference, we will present the following courses:

- Primary Care | Physician Education Course
- Dental Education Course
- Pharmacy Education Course
- CBT-I Psychology Program (2 options – ½ day English; full day French)

*NOTE:* *The education courses are* *__not included__* *in general conference registration and requires* *__separate__* *__registration__* *and* *__an additional fee__*.

## Trainee Research Day
In addition, the 2021 conference will host a Trainee Research Day on Thursday, October 28, 2021.  This program requires pre-registration and is complimentary for all Trainees who are member of the Canadian Sleep Society.

# PRIMARY CARE | PHYSICIAN EDUCATION COURSE

**Primary Care | Physician Education Course – At a Glance**
**Thursday, October 28, 2021**
**8 AM – 6 PM Eastern Daylight Time**

| Start | End | Presentation Title | Presenter |
|---|---|---|---|
| 8:00 AM | 8:15 AM | Welcome & Introduction | Dr. Rob Skomro |
| 8:15 AM | 9:00 AM | Sleep Physiology Assessments from The Sleep Lab to Patients Home | Dr. Andrew Lim |
| 9:00 AM | 9:45 AM | Chronic Insomnia | Dr. Colleen Carney |
| 9:45 AM | 10:30 AM | Obstructive Sleep Apnea Update | Dr. John Kimoff |
| 10:30 AM | 10:45 AM | Break | |
| 10:45 AM | 11:30 AM | Hypersomnia and narcolepsy | Dr. Brian Murray |
| 11:30 AM | 12:15 PM | Restless Leg Syndrome: When Counting Sheep is Not Sufficient | Dr. Alex Desautels |
| 12:15 PM | 1:15 PM | Lunch | |
| 1:15 PM | 1:30 PM | Welcome and Introduction | Dr. Rob Skomro |
| 1:30 PM | 2:30 PM | Workshop: Pediatric Sleep Medicine | Dr. Indra Narang |
| 2:30 PM | 2:45 PM | Break | |
| | | | |
| 2:45 PM | 3:45 PM | Workshop: Insomnia – updates in psychological treatments | Dr. Colleen Carney |
| 3:45 PM | 4:45 PM | Advances in OSA Management | Dr. John Kimoff |
| 4:45 PM | 5:45 PM | Workshop: AFC Sleep Disorders Medicine | Dr. John Fleetham |
| 5:45 PM | 6:00 PM | Wrap-up | Dr. Rob Skomro |

## PRIMARY CARE | PHYSICIAN EDUCATION COURSE

Physician Education Course – Detail
Thursday, October 28, 2021

8:00 AM-8:15 AM
*Welcome & Introduction by Dr. Rob Skomro*

8:15 AM-9:00 AM
**TITLE:** *Sleep Physiology Assessments From The Sleep Lab To Patients Home*
**PRESENTER:** Dr. Andrew Lim, Sunnybrook Health Sciences Centre, University of Toronto
**DESCRIPTION:** Sleep problems are common, and associated with numerous adverse health outcomes. Accurate measurement of sleep is of critical importance in promoting sleep health. It is notoriously difficult to accurately reflect on one's own sleep because by definition one is unconscious when sleep is occurring. Hence, both over- and under-estimation of sleep are common, and is unawareness of sleep abnormalities. To overcome this, objective testing is needed to facilitate screening for and diagnosis of sleep abnormalities, and monitoring of response to sleep treatments. At present, in-lab polysomnography a.k.a. "sleep studies" remain the primary clinical tool to diagnose sleep disorders. However, polysomnography is difficult for many older adults to tolerate, requires specialized technologists to obtain and analyze the recordings, is labour intensive and expensive, and not widely available in many jurisdictions, all of which impede use by primary care clinicians, or end-users. Recent technological advances have led to an explosion of new approaches using wearable sensors to measure various aspects of sleep physiology. This session will review recent advances in wearable technologies for sleep measurement, with a focus on potential applications in primary care.

**LEARNING OBJECTIVES:**
After active engagement in this session, participants will better be able to :
1. Describe advantages, disadvantages, and uses of in-lab polysomnography for management of patients with sleep complaints.
2. Describe approaches to sleep apnea measurement using wearable devices.
3. Describe approaches to measurement of other aspects of sleep physiology using wearable devices.

9:00 AM-9:45 AM
**TITLE:** *Chronic Insomnia*
**PRESENTER:** Dr. Colleen Carney, Ryerson University
**DESCRIPTION:** With the recent updates to both pharmacologic and psychological treatments released by the American Academy of Sleep Medicine, we have guidance for psychological and pharmacological recommendations for chronic insomnia. Many of the psychological recommendations were similar to the American Psychological Association empirically supported treatments for insomnia paper years ago (Morin et al., 1999; 2008), namely that there was a strong recommendation to use cognitive behavioural therapy. However, there were some

changes including a recommendation to NOT use sleep hygiene -- one of the most widely disseminated, but ineffective treatments. This information is likely to surprise many, and this lecture will provide clarifications about evidence-based practice. This lecture will review evidence-based approaches to chronic insomnia.

LEARNING OBJECTIVES:

After active engagement in this session, participants will better be able to :

1.  Appraise the evidence critically for psychological and pharmacologic approaches.
2.  Describe the 3 P causal factors for chronic insomnia.
3.  Match evidence-based approaches to address the three causal factors.


9:45 AM-10:30 AM

TITLE:  *Obstructive Sleep Apnea Update*

PRESENTER:  Dr. John Kimoff, McGill University

DESCRIPTION:  This session will provide an overview of recent advances in the clinical recognition, complications, diagnosis, and management strategies for obstructive sleep apnea-hypopnea. The session will be aimed at primary care physicians and will focus on priority issues for clinical practice, focused on providing practical approaches to improving patient health and well-being.

LEARNING OBJECTIVES:

After active engagement in this session, participants will better be able to :

1.  Describe current data on the prevalence, complications and approaches to screening and diagnosis of obstructive sleep apnea.
2.  Describe the indications for and current approaches to treatment of OSA.


10:30 AM-10:45 AM    *Break*


10:45 AM-11:30 AM

TITLE:  *Hypersomnia and Narcolepsy*

PRESENTER:  Dr. Brian Murray, Sunnybrook Health Sciences Centre, University of Toronto

DESCRIPTION:  Sleepiness is a common concern in general clinical practice. Sleepiness can be measured with subjective questionnaires or objective tests such as the multiple sleep latency test or maintenance of wakefulness test. The most common cause of sleepiness is behavioral - insufficient sleep. Aside from that, medications, medical conditions, sleep apnea, narcolepsy, and idiopathic hypersomnia are conditions that contribute to sleepiness. Specific therapies can provide significant benefit to quality of life.

LEARNING OBJECTIVES:

After active engagement in this session, participants will better be able to :

1.  Assess daytime sleepiness subjectively and objectively in an individual patient.

2. Summarize the most common causes of hypersomnia and recognize features suggestive of narcolepsy in particular.
3. Implement treatment strategies for these conditions.

## PRIMARY CARE | PHYSICIAN EDUCATION COURSE

11:30 AM-12:15 PM

**TITLE:** *Restless legs syndrome: When counting sheep is not sufficient*

**PRESENTER:** Dr. Alex Desautels, University of Montreal

**DESCRIPTION:** Restless legs syndrome (RLS), also known as Willis-Ekbom disease (WED), is a common somatosensory disorder that interferes with rest and sleep. It has a wide spectrum of symptom severity and is diagnosed according to clinical criteria: an urge to move the legs, usually associated with unpleasant leg sensations; induction or exacerbation of symptoms by rest; symptom relief with activity; and circadian fluctuations in symptoms with worsening in the evening and at night. In most cases, characteristic periodic limb movements during sleep can be identified during a polysomnographic recording.

Dopamine agonists and $\alpha2\delta$ calcium channel ligands (gabapentin and pregabalin) are considered first-line therapy, but these treatments have very different side effect profiles that should be taken into consideration. Prolonged use of dopaminergic agents can result in a paradoxical worsening of symptoms, known as augmentation, which represents the main problem encountered in difficult-to-treat patients. Iron deficiency must be identified and treated by supplementation, both to improve RLS symptoms and to potentially lower the risk of augmentation.

This presentation will review the key concepts pertaining to the clinical presentation, diagnosis and management of RLS.

**LEARNING OBJECTIVES:**

After active engagement in this session, participants will better be able to :

1. Recognize the key elements for the diagnosis.
2. Select the appropriate treatment.
3. Identify medication-related complications.

12:15 PM-1:15 PM     *Lunch*

1:15 PM-1:30 PM

*Welcome and Introductions by Dr. Rob Skomro*

# PRIMARY CARE | PHYSICIAN EDUCATION COURSE

1:30 PM-2:30 PM

**TITLE:**  *Workshop: Pediatric Sleep Medicine*

**PRESENTER:**  Dr. Indra Narang, Toronto Hospital for Sick Children

**DESCRIPTION:**  This session will describe the current epidemiology and pathophysiology of obstructive sleep apnea in children and adolescents. Following this, this session will focus on clinical updates in pediatric obstructive sleep apnea sleep medicine. Specifically, a broad clinical approach for the management of children with moderate to severe OSA post adenotonsillectomy will be described and discussed with emphasis on newer targeted therapeutic approaches. Finally, we will discuss current and future research towards a personalized approach for the management of childhood obstructive sleep apnea.

**LEARNING OBJECTIVES:**

After active engagement in this session, participants will better be able to :

1. Describe the changing paradigm of epidemiology and pathophysiology of obstructive sleep apnea in childhood.
2. Discuss novel strategies to optimize therapeutic interventions for OSA.

2:30 PM-2:45 PM       *Break*

2:45 PM-3:45 PM

**TITLE:**  *Workshop: Insomnia – Updates in Psychological Treatments*

**PRESENTER:**  Dr. Colleen Carney, Ryerson University

**DESCRIPTION:**  With the release of the American Academy of Sleep Medicine's Clinical Practice Guidelines, we have the most comprehensive and current evidence for psychological treatments. We will discuss these guidelines and using a case example we will show how these treatments are delivered. This workshop will discuss assessment issues, and present evidence for brief, effective psychological approaches to chronic insomnia.

**LEARNING OBJECTIVES:**

After active engagement in this session, participants will better be able to :

1. Describe the American Academy of Sleep Medicine Clinical Practice Guidelines.
2. Determine what treatment components to use in the case example using case formulation.
3. Explain the major components of CBT-I.

# PRIMARY CARE | PHYSICIAN EDUCATION COURSE

3:45 PM-4:45 PM

**TITLE:** *Advances in OSA Management*

**PRESENTER:** Dr. John Kimoff, McGill University

**DESCRIPTION:** This session will use a case-based, interactive approach to review recent progress in the practical management of OSA. Advances in CPAP, oral appliance, pharmacotherapy and other treatment approaches will be considered in relation to patient clinical and sleep study characteristics.

**LEARNING OBJECTIVES:**

After active engagement in this session, participants will better be able to :

1. Describe current approaches to initiating, monitoring, optimizing and troubleshooting CPAP treatment for OSA.
2. Describe the growing number of alternate approaches to CPAP for OSA treatment together with a practical approach to treatment selection and optimization.


4:45 PM-5:45 PM

**TITLE:** *Workshop: AFC Sleep Disorders Medicine*

**PRESENTER:** Dr. John Fleetham, University of British Columbia

**DESCRIPTION:** This session will review the Royal College of Physicians and Surgeons of Canada (RCP) area of focused competence (AFC) in sleep disorder medicine.  This diploma has been established as the Canadian subspecialty qualification in sleep disorder medicine over the last past 5 years.  The entry criteria are an FRCP(C) in Respirology, Psychiatry, Neurology, Otolaryngology, General Internal Medicine, Pediatric Respirology, Pediatric Neurology or Developmental Medicine. The AFC in Sleep Disorder Medicine can be obtained by either completing a 1 year fellowship in an RCP accredited training program or submitting a portfolio through the practice eligibility route if you have been in a sleep disorder medicine practice for >2 years.

**LEARNING OBJECTIVES:**

After active engagement in this session, participants will better be able to :

1. Outline the entry criteria and curriculum for the AFC in Sleep Disorder Medicine.
2. Discuss the 2 different entry routes to obtain the AFC in Sleep Disorder Medicine.


5:45 PM-6:00 PM        *Wrap-up with Dr. Rob Skomro*


**CME Credit Information for Primary Care**
A certificate of attendance will be issued to participants.

## DENTAL EDUCATION COURSE

### DENTAL PROGRAM – At a Glance
Thursday, October 28, 2021

| 9:00 AM – 12:00 PM | Respiratory Endotyping in Patients Treated with a Mandibular Advancement Device for Obstructive Sleep Apnea<br>Prof. Dr. Olivier M. Vanderveken, MD, PhD |
|---|---|
| 1:00 PM – 4:00 PM | Patient Centered Approach in Dental Sleep Medicine<br>Dr. Fernanda Almeida, University of British Columbia |

### Dental Program – Detail
Thursday, October 28, 2021

9:00 AM – 12:00 PM

*Respiratory Endotyping in Patients Treated with a Mandibular Advancement Device for Obstructive Sleep Apnea*

Presenter:  Prof. Dr. Olivier M. Vanderveken, MD, PhD

Learning Objectives:

1. Understands the anatomical and non-anatomical contributors to OSA pathophysiology
2. Appreciates the role of drug-induced sleep endoscopy in the selection of good candidates for mandibular advancement device treatment
3. Has been introduced to the non-invasive, simplified respiratory endotyping of OSA patients including the role of endotyping for the upfront selection of OSA patients for MAD treatment

1:00 PM – 4:00 PM

*Patient Centered Approach in Dental Sleep Medicine*

Presenter:  Dr. Fernanda Almeida, University of British Columbia

### CDE Credit Information for Dentists

The Dental program has been approvedfor continuing education credits by the by the Quebec Dental Association.

This activity will be eligible for a maximum 6.0 dental continuing educations credit.

# PHARMACY EDUCATION COURSE

## PHARMACY Education Course – At a Glance
Thursday, October 28, 2021

| Session | Title | Starts | Ends | Language |
|---|---|---|---|---|
| Opening - Ouverture | Welcome - Mot de bienvenue | 11:00 AM | 11:10 AM | EN/FR |
| Theme 1 | Physiology of sleep - Physiologie du sommeil | 11:10 AM | 11:25 AM | EN |
| Theme 2 | Causes of insomnia - Causes de l'insomnie | 11:25 AM | 11:55 AM | EN |
| Q&A | Question Period - Période de questions | 11:55 AM | 12:05 PM | EN |
| Theme 3 | Communicating the limitations and risks of sedative-hypnotics to effect behaviour change - Communiquer les limites et risques des sédatifs-hypnotiques afin d'engendrer un changement de comportement | 12:05 PM | 12:35 PM | EN |
| Q&A | Question Period - Période de questions | 12:35 PM | 12:45 PM | EN |
| Break | Pause | 12:45 PM | 12:55 PM | |
| Theme 4 | Deprescription of sedative-hypnotics - Déprescription des hypnosédatifs | 12:55 PM | 1:45 PM | FR |
| Q&A | Question Period - Période de questions | 1:45 PM | 1:55 PM | FR |
| Break | Pause | 1:55 PM | 2:05 PM | |
| Theme 5 | Non-pharmacologic approaches to sleep disorders - Mesures non pharmacologiques aux troubles du sommeil | 2:05 PM | 2:55 PM | EN |
| Q&A | Question Period - Période de questions | 2:55 PM | 3:05 PM | EN |
| Theme 6 | Successful programs and practical tools - Programmes à succès et outils pratique | 3:05 PM | 3:35 PM | EN/FR |
| Round Table with presenters (Q&A) - Table ronde avec les conférenciers (Q&R) | Encouraging the integration of programs and tools to promote sleep within clinical practice - Promouvoir l'intégration de programmes et d'outils à la pratique clinique afin de favoriser le sommeil | 3:35 PM | 3:50 PM | EN/FR |
| Closing - Clôture | Thanks - Remerciements | 3:50 PM | 3:55 PM | EN/FR |
| TOTAL TIME | | | | Minutes |
| | | | | (4H55) |

# PHARMACY EDUCATION COURSE

PHARMACY EDUCATION COURSE – Detail
Thursday, October 28, 2021

11:00 – 11:10 AM
*Welcome - Mot de bienvenue*

11:10 – 11:25 AM
*Theme 1:  Physiology of Sleep - Physiologie du sommeil*
Presenter:  Elaine Lyons, Principal Pharmacist (Sleep & Respiratory Medicine), Guy's Hospital, London, England
Sleep is a vital, often neglected, component of every person's overall health and well-being. Sleep is important because it enables the body to repair and be fit and ready for another day. Getting adequate rest may also help prevent excess weight gain, heart disease, and increased illness duration.  There are five stages of sleep that rotate between non-rapid eye movement (NREM) and rapid eye movement (REM) and include drowsiness, light sleep, moderate to deep sleep, deepest sleep, and dreaming.  The average length of the first NREM-REM sleep cycle is between 70 and 100 minutes; the average length of the second and later cycles is about 90 to 120 minutes. The reason for such a specific cycling pattern of NREM and REM sleep across the night is unknown.  Sleep changes as a function of age. Aging is associated with decreased ability to maintain sleep (increased number of awakenings and prolonged nocturnal awakenings), reduced nocturnal sleep duration, and decreased deep sleep (slow wave sleep).
**LEARNING OBJECTIVES:**
1. Describe normal sleep (stages, cycle, needs)
2. Describe physiology changes in sleep associated with age

11:25 – 11:55 AM
*Theme 2:  Causes of Insomnia - Cause de l'insomnie*
Presenter:  Elaine Lyons, Principal Pharmacist (Sleep & Respiratory Medicine), Guy's Hospital, London, England
Insomnia is a common sleep disorder that can make it hard to fall asleep, hard to stay asleep, or cause you to wake up too early and not be able to get back to sleep. You may still feel tired when you wake up. Insomnia can reduce your energy levels and mood but also your health, work performance and quality of life.
**LEARNING OBJECTIVES:**
1. Define insomnia
2. Recognise causes of insomnia
3. Evaluate the sleep complain
4. Intervene on sleep disorder comorbidities

# PHARMACY EDUCATION COURSE

### Evaluate the sleep complaint:

A good starting point is to recognise that what occurs during the day can affect the sleeping process. Likewise, what occurs during sleep can affect our daytime function. One physiologic process is called the sleep drive. The other is called the wake drive. An accurate sleep history, diagnostic tests, questionnaires will offer some basic and critical information to understand more about the patients sleep disorder and subsequent management of it.

**Interventions:** Insomnia and hypersomnia are highly comorbid with medical conditions, such as chronic pain and diabetes, as well as with various cardiovascular, respiratory, gastrointestinal, urinary and neurological disorders. Mood disorders is also highly prevalent for which we focus on a non-pharmacological approach to management i.e. behavioural treatment (alone or in combination with medications).

11:55 AM – 12:05 PM

*Question Period - Période de questions*

Presenter:  Elaine Lyons, Principal Pharmacist (Sleep & Respiratory Medicine), Guy's Hospital, London, England

12:05 – 12:35 PM

*Theme 3: Communicating the limitations and risks of sedative-hypnotics to effect behaviour change - Communiquer les limites et risques des sédatifs-hypnotiques afin d'engendrer un changement de comportement*

Presenter:  David Gardner, Pharmacist, Dalhousie University

Risks associated with sedative-hypnotic use, especially in older adults, are well known to health care providers. However, they continue to be the dominant form of treatment for short- and long-term insomnia. Reducing their incident and prevalent use has been targeted by many campaigns, typically resulting in little to no sustained effect on prescribing. Pressure to reduce target sedative-hypnotics, such as benzodiazepines, has resulted in a shift in prescribing to other sedatives and hypnotics, including z-drug, which share the same pharmacology and risks, as well as antidepressants, antipsychotics, antihistamines, and cannabis, each of which carry their own efficacy limitations and risks. This presentation will focus on demonstrating the risks and limitations of sedative-hypnotics and other substances to facilitate sharing this information to patients and prescribers.

### LEARNING OBJECTIVES:

1. Identify risks and limitations of sedative-hypnotics and other substances; and
2. Effectively communicate risks and limitations of sedative hypnotics and other substances to patients and prescribers.

## PHARMACY EDUCATION COURSE

12:35 – 12:45 PM

*Question Period - Période de questions*
Presenter:  David Gardner, Pharmacist, Dalhousie University

12:45 – 12:55 PM  *Break - Pause*

12:55 – 1:45 PM

*Thème 4: Deprescription of sedative-hypnotics -Déprescription des hypnosédatifs*
Presenter:  Presenter: Annie Roberge, Pharmacienne, CIUSSS de la Capitale-National
This presentation proposes an approach for pharmacists to feel comfortable intervening with their patients who use sedative-hypnotics.  They will be able to motivate them to start withdrawal and support them in preventing relapse. Topics will include: success factors and principles of withdrawal and relapse prevention.

LEARNING OBJECTIVES:

1. Motivate and support the patient to reduce or discontinue sedative-hypnotics.
2. Use strategies appropriate to the patient.

1:45 – 1:55 PM

*Question Period - Période de questions*
Presenter: Annie Roberge, Pharmacienne, CIUSSS de la Capitale-National

1:55 – 2:05 PM  *Break - Pause*

2:05 – 2:55 PM

*Theme 5: Non-pharmacologic approaches to sleep disorders - Mesures non pharmacologiques aux troubles du sommeil*

Presenters:  Derek Jorgenson, Pharmacist, College of Pharmacy and Nutrition and the College of Medicine University of Saskatchewan; Eric Landry, Pharmacist, Coordinator, Medication Assessment Centre, College of Pharmacy and Nutrition, University of Saskatchewan

The co-presenters of this session will provide a detailed description of how a pharmacist can provide cognitive behavioural therapy for insomnia (CBTi) to individual patients, focusing on practical tips for integrating this service into an existing practice. This will include a description of the various elements of CBTi and how each can be delivered, tips to support patients in the implementation of CBTi, and a description of common barriers that might be encountered by pharmacists attempting to integrate this service into an existing practice. Several practical

examples and practice tools, drawn from the presenter's personal experience providing CBTi in Saskatchewan, will be shared. Finally, the presenters will provide a brief summary of the evidence regarding the effectiveness of this service when it is provided by pharmacists.

LEARNING OBJECTIVES:

1. Describe the elements of CBT-i (i.e., sleep hygiene, stimulus control, sleep restriction, cognitive restructuring, relaxation, and mindfulness based stress reduction).
2. Describe tips to support patients in the implementations of these non-pharmacological approaches.
3. Explain how to employ a structured approach to providing CBT-i within an existing pharmacist practice.
4. Describe barriers that might be encountered when attempting to integrate this service into a pharmacist practice.
5. Describe the evidence regarding the impact that pharmacist delivered CBT-i has on patient outcomes

2:55 – 3:05 PM

*Question Period - Période de questions*

Presenters:  Derek Jorgenson, Pharmacist, College of Pharmacy and Nutrition and the College of Medicine University of Saskatchewan; Eric Landry, Pharmacist, Coordinator, Medication Assessment Centre, College of Pharmacy and Nutrition, University of Saskatchewan

3:05 – 3:35 PM

*Thème 6: Successful programs and practical tools - Programmes à succès et outils pratique*

Presenters:  Presenter: Annie Roberge, Pharmacienne, CIUSSS de la Capitale-National; David Gardner, Pharmacist, Dalhousie University; Justin Turner, Pharmacist, Université de Montréal and Centre de recherche de l'Institut universitaire de gériatrie de Montréal.

Annie Roberge will describe the "Agir pour mieux dormir" program. Since 1996, this program has been aimed at people aged 55 and over who suffer from insomnia. It offers non-pharmacological means to treat insomnia and offers support for the cessation of sedative-hypnotics. The program is recognized as exemplary practice by Accreditation Canada.

Sleepwell (mysleepwell.ca) is an online resource for people living with insomnia and their healthcare providers. It has two primary objectives: 1) to support the reduced use (prevalent and incident) of sedative-hypnotics across the population; and 2) to increase awareness, access, and use of cognitive-behavioural therapy for insomnia. In achieving these 2 objectives, Sleepwell will support the alignment of practice standards with insomnia clinical practice guidelines.

The SaferMedsNL initiative has adapted and implemented evidence-based approaches to 1)

## PHARMACY EDUCATION COURSE

promote safe and effective alternative treatments for insomnia and 2) reduce the inappropriate use of sedative medication in Newfoundland and Labrador. This session will provide an overview of SaferMedsNL and the role that community pharmacists can play in promoting appropriate insomnia treatment.

LEARNING OBJECTIVES:
1. Décrire le programme Agir pour mieux dormir de Québec
2. Identifier les outils du site Web MySleepwell.
3. Décrire le programme SaferMedsNL à Terre-Neuve-et-Labrador

3:35 – 3:50 PM

*Roundtable discussion with presenters (Q&A) - Table ronde avec les conférenciers (Q&R):*
David Gardner, Pharmacist; Derek Jorgenson, Pharmacist; Elaine Lyons, Pharmacist; Annie Roberge, Pharmacienne; Justin Turner, Pharmacist ; Eric Landry, College of Pharmacy and Nutrition, University of Saskatchewan
Encouraging the integration of programs and tools to promote sleep within clinical practice - Promouvoir l'intégration de programmes et d'outils à la pratique clinique afin de favoriser le sommeil

**FRENCH SESSION | SESSION FRANÇAISE**

**ENGLISH TRANSLATION AVAILABLE | TRADUCTION ANGLAISE DISPONIBLE**

3:50 – 3:55 PM

*Closing Remarks*
Thanks - Remerciements

### CEU Credit Information for Pharmacists
Attendees to the Pharmacy Education Course are encouraged to submit this non-accredited learning activity for CEU requirements with the regulatory body in their province or territory. The maximum CEU allowable is 5.0 hours.

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## PSYCHOLOGIST WORKSHOPS ON INSOMNIA
Thursday, October 28, 2021

### OPTION 1:
*CBT-I for Psychologists*
**9 AM – 12:30 PM Eastern Daylight Time**
**PRESENTER:** Judith R. Davidson, Ph.D., C. Psych, Clinical and Health Psychologist Somnologist (ESRS): Behavioural Sleep Medicine & Adjunct Professor, Queen's University
**DESCRIPTION:** This is a half-day workshop on cognitive behavioural therapy for insomnia (CBT-I) for psychologists or psychologists-in-training. CBT-I is the first-line treatment for chronic insomnia, the most common sleep disorder. Because of its robust effectiveness at restoring sleep and quality of life, CBT-I is one of the most rewarding interventions a psychologist can provide.

For this CSS workshop, Judith will be joined by Katherine Fretz, M.Sc., a doctoral student in Clinical Psychology at Queen's University.

### OPTION 2:
*Behavioral-cognitive treatment of insomnia (CBT-I)*
**9 AM – 4:00 PM Eastern Daylight Time**
**PRESENTER:** Annie Vallières, Ph.D, Professor, Université Laval
**DESCRIPTION:** This one-day training focuses on cognitive-behavioral therapy for insomnia (CBT-I). It is offered to psychotherapists or psychologists concerned about sleep, persistent fatigue or sleepiness in their patients. It is also intended for psychologists and psychotherapists who are already familiar with CBT-I but have difficulty applying it. Insomnia is the most common sleep disorder and is often comorbid with anxiety and mood disorders. Insomnia should be the focus of treatment for all patients who suffer from it. CBT-I is known to be effective and is recommended as a first line treatment.
This training is accredited by the OPQ.

### Continuing Professional Development for Psychologists:
Upon completion, participants will receive a certificate of attendance. Psychologists can add their attendance to their personal Continuing Professional Development portfolios.

# TRAINEE RESEARCH DAY
## Thursday, October 28, 2021
### 8:50 AM – 4:30 PM Eastern Daylight Time
DESCRIPTION: Trainee Research Day is a daylong event that has been designed by trainees for trainees in sleep research, graciously funded by Eisai and the Canadian Institute of Health Research Institute for Circulatory and Respiratory Health (CIHR-ICRH). The program will be relevant to a wide range of trainees, and is planned to achieve scientific integrity, objectivity and balance. Participation is encouraged from trainees at all levels, from undergraduate, graduate students and postdoctoral fellows working in basic and clinical research fields. The program will include data presentations by trainees, in addition to sessions for professional development, academic publishing and improving scientific communication skills. The CCS/CIHR-ICRH Trainee Research Day will conclude with a social event and data blitz aiming to promote networking.

## TRAINEE DAY SCHEDULE – At a Glance

| Time | Activity | Speaker(s) |
|---|---|---|
| 8:50-9:00 | Welcome and Opening Remarks | Nic van den Berg, *University of Ottawa* <br> Sara Pintwala, *University of Toronto* |
| **Morning Session: Academic Publishing and Effective Presentation Workshops** | | |
| 9:00-9:45 | Academic publishing workshop <br> Question and answers with panel of editors | Thien Thanh Dang-Vu, *Associate Editor-Sleep* <br> John Peever, *Associate Editor-Sleep* <br> Orfeu Buxton, *Chief Editor-Sleep Health* <br> Dr. Cyrus Martin, *Editor of Current Biology* |
| 9:45-10:30 | Career Panel \| Questions and answers with panel of professionals about career options post-graduate studies | Dr. Jimmy Fraigne, *University of Toronto* <br> Ms. Natalie Morin, *Sleep Strategies* <br> Dr. Janna Mantua, *Walter Reed Army Institute of Research* |
| 10:30-10:45 | Health break | |
| 10:45-12:45 | Effective Presentation Workshop | Ms. Colleen Aynn, *Professional Public Speaker Coach* |
| 12:45-1:30 | Lunch Break | |
| **Afternoon Session: A Focus on Trainees** | | |
| 1:30-1:45 | Introduction to Session | Samuel Gillman, *Concordia University* <br> Tanya Leduc, *University of Montreal* |
| 1:45-2:30 | Top Undergraduate Student Sleep Research Award Winner \| Top Graduate Student Sleep Research Award Winner \| Top Post-Doctoral Fellow Sleep Research Award Winner | Ms. Laura Ramos Socarras, *Université du Québec en Outaouais* <br> Mr. Russell Luke, *University of Toronto* <br> Dr. Ahmed Elwali, *University of Manitoba* |
| 2:30-3:00 | Experimental Sleep Research Student Abstract Award Winner \| Clinical Sleep Research Student Abstract Award Winner | Ms. Maria Neus Ballester Roig, *Université de Montréal* \| <br> Mr. Jean-Louis Zhao, *Concordia University* |
| 3:00-3:15 | Health break | |
| 3:15-3:30 | Sex and Gender Student Abstract Award Winner | Dr. Veronica Guadagni, *University of Calgary* |
| 3:30-3:45 | CSS Student Abstract Competition Winner | Ms. Sara Pintwala, *University of Toronto* |
| 3:45-5:00 | Closing Comments and Social | |

# PROGRAM ACCREDITATION: CME, CEC AND CDE INFORMATION

### CME Credit Information for Physicians and General Scientific Programs

This continuing professional development activity was held under the auspices of Continuing Professional Development, Temerty Faculty of Medicine, University of Toronto and the Canadian Sleep Society.



### Accreditation:

### Royal College of Physicians and Surgeons of Canada – Section 1

This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada, approved by Continuing Professional Development, Temerty Faculty of Medicine, University of Toronto. You may claim a maximum of 24.5 hours.

Oct. 28 = 9.0 Section 1 hours
Oct. 29 = 8.5 Section 1 hours
Oct. 30 = 7.0 Section 1 hours

Each participant should claim only those hours of credit that he/she actually spent participating in the educational program.

**FOR FAMILY PHYSICIANS:**  The CFPC will accept credits from the Royal College of Physicians and Surgeons of Canada

Members may claim certified credits through the Maintenance of Certification program: Accredited Section 1 and Section 3 credits are eligible for certified credits, up to a maximum of 50 credits per five-year cycle. Any additional credits are eligible as non-certified credits.
https://www.cfpc.ca/en/educati...

## CEC Credit Information for Technologists

Continuing Education Credits (CEC) for Technologists for attendance at CSS conferences are given by the Canadian Sleep Society and recognized by the Board of Registered Polysomnographic Technologists (BRPT).

Total number of CEC hours for attendance at the two-day program is 17.0 credits and it breaks down by day:

| Total Credits Available | Thursday | Friday | Saturday | TOTALS |
|---|---|---|---|---|
| Technologist | 1.0 credit | 9.0 credits | 7.0 credits | 17.0 credits |

## CDE Credit Information for Dentists

The Dental CME program has been approvedfor continuing education credits by the by the Quebec Dental Association

This activity will be eligible for a maximum 6.0 dental continuing educations credit.

## CEU Credit Information for Pharmacists

Attendees to the Pharmacy Education Course are encouraged to submit this non-accredited learning activity for CEU requirements with the regulatory body in their province or territory. The maximum CEU allowable is 5.0 hours.

## Continuing Professional Development for Psychologists:

Upon completion, participants will receive a certificate of attendance. Psychologists can add their attendance to their personal Continuing Professional Development portfolios.
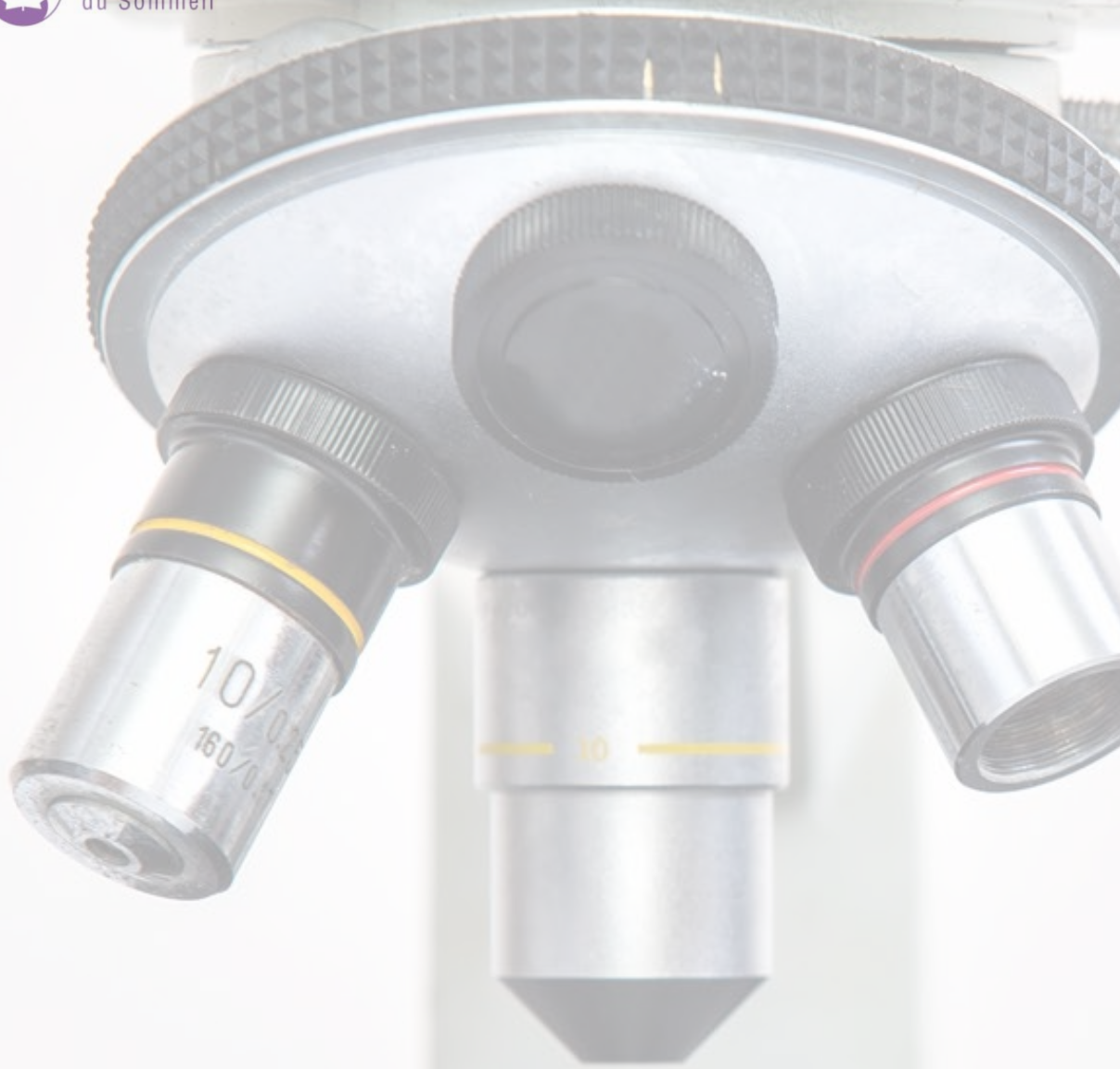
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