MONTRÉAL

12th CSS Congress

It's time to talk about sleep.

March 14-16, 2025

Le Centre Sheraton Montreal Hotel

Canadian Sleep Society / Société Canadienne du Sommeil

PROGRAM

WELCOME FROM THE CSS PRESIDENT AND CONFERENCE CO-CHAIR

Dear colleagues,

On behalf of the Canadian Sleep Society (CSS), and the Executive board of the society, I look forward to welcoming you to the 12th Congress of the CSS! We are excited we will get to meet in person for the first time in several years as we gather in beautiful downtown Montreal. As always, our scientific conference will be an opportunity to share scientific discoveries, network with colleagues, and, of course, learn about the latest innovations in sleep research and sleep medicine. CSS is leading the discussion about sleep health in Canada with the public *Sleep On It* campaign so although we are an apolitical body, advocating for healthy sleep for all Canadians is essential to our mission. We salute the growth of all our people, from trainees to scientists, researchers, physicians, technologists, pharmacists, dentists and all fields of sleep research and sleep medicine you have chosen to exercise/practice.

As we plan our 2025 conference, I would like to acknowledge and thank many people who are working hard 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.

Whether this will be your first time attending a Canadian Sleep Society conference, or you if are a faithful member of the CSS who has been part of them all, the 2025 program will include new and leading-edge knowledge of sleep while you meet new colleagues who share your interests.

For sponsors and industry partners who will join us, your contributions will enable this conference to take place and add significantly to the spirit of discovery and innovation that marks this Canadian Sleep Society meeting. So, mark the dates in your calendar and I look forward to seeing you in beautiful Montreal, Qc from March 14-16, 2025.

John Peever, PhD
President, Canadian Sleep Society

WELCOME FROM 2025 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 2025 Canadian Sleep Society Conference. We are thrilled to be in beautiful downtown Montreal, and 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 clinical research for the treatment of sleep disorders, experts will share their knowledge from many perspectives.

Our 2025 Distinguished Scientist, Dr. John Fleetham, will open the conference. His knowledge of sleep disorders brings excellence to the program that also features seven (7) additional keynote speakers, sixteen (16) scientific symposia, seven (7) oral sessions and two (2) lunchtime poster sessions. All 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 advanced research. 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 and other Committees for their contribution to 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. Welcome to Montreal for the 2025 Canadian Sleep Society National Conference!

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

Canadian Sleep Society | Société Canadienne du Sommeil

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Canadian Sleep Society | Société Canadienne du Sommeil

ABOUT THE CANADIAN SLEEP SOCIETY

https://css-scs.ca/

The Canadian Sleep Society is a national organization committed to improving sleep for all Canadians through support for research, promotion of high-quality clinical care, education of professionals and the public, and advocacy for sleep and sleep disorders medicine.

OUR VISION: *"Healthy sleep for healthy Canadians"*

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

- Support for research,
- Promotion of high-quality clinical care,
- Education of professionals and the public, and
- Advocacy for sleep and sleep disorders medicine.

PRIORITIES: Our priorities are to improve sleep for all Canadians through support for research, promotion of access to high quality clinical care, education of healthcare professionals and the public, and advocacy for healthy sleep in the schools and in the workplace.

Current and 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, DABS	*2008-2011*
Shelly Weiss, MD	*2011-2014*
Kimberly Cote, PhD	*2014-2017*
Charles Samuels, MD, CCFP, DABSM	*2017-2019*
Célyne Bastien, PhD	*2019-2023*
John Peever, PhD	*2023-Present*

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C'est l'heure de parler de sommeil.

Canadian Sleep Society | Société Canadienne du Sommeil

ABOUT THE CONFERENCE | http://sleepconference.ca

A multi-day, multidisciplinary scientific congress focused on leading edge sleep science.

Overall Educational Goals of the Conference:

By participating in this learning activity, participants will be able to:

- Examine the latest updates and clinical advancements in the diagnosis and treatment of sleep disorders.
- Discuss cutting-edge scientific research and emerging therapies for sleep disorders.
- Enhance their understanding of sleep medicine for both specialists and general healthcare providers.

Past Conference Locations and Participant Numbers

	Location	Dates	#	Theme
11th	Ottawa	April 27-29, 2023	600	
10th	Online	October 28-30, 2021	620	Virtual
9th	Vancouver*	Sep 20-25, 2019	3300	The Best of Sleep Medicine and Research
8th	Calgary, AB	April 28-30, 2017	710	
7th	Toronto, ON	Sep 25-27, 2015	800	Sleep, Health and Disease
6th	Halifax, NS	Oct 4-6, 2013	500	Make Time for Sleep
5th	Quebec City*	Sep 10-15, 2011	1600	Sleep, Health and Society
4th	Toronto, ON	Apr 25-26, 2009	750	Waking Up to Sleep Disorders
3rd	Montreal, QC	Apr 19-20, 2007	570	
2nd	Quebec City, Qc	May 13-15, 2004	340	
1st	Ottawa, ON	May 4-5, 2001	325	A Canadian Sleep Odyssey

**Note – Quebec City (2011) and Vancouver (2019) were hosted in conjunction with the World Sleep Society Conference*

CONFERENCE COMMITTEES

Conference Organizing Committee

Co-Chairs

- **John Peever, PhD**; Director, Centre for Biology Timing and Cognition, Toronto, On; Associate Chair Graduate Studies, Professor, Department of Cell and Systems Biology, University of Toronto, Toronto, On; Associate Journal Editor, Sleep and Frontiers in Neuroscience; President, Canadian Sleep Society
- **Thanh DANG-VU, MD PhD FAASM**; Professor, Neurologist; Director, Sleep, Cognition & Neuroimaging Laboratory (SCNLab); Concordia University Research Chair in Sleep, Neuroimaging and Cognitive Health (Tier 1), Ctr for Studies in Behavioral Neurobiology & PERFORM Ctr, Dpt of Health, Kinesiology and Applied Physiology, Concordia University, Montreal, Qc; Associate Director for Clinical Research, Centre de Recherche de l'Institut Universitaire de Gériatrie de Montréal (CRIUGM), CIUSSS du Centre-Sud-de-l'île-de-Montréal, Montreal, Qc; Vice-President (Research), Canadian Sleep Society
- **Michael Mak, MD, FRCPC, FCPA, FAASM**; Sleep medicine specialist, Staff psychiatrist, Centre for Addiction and Mental Health, Toronto, On; Assistant professor, Department of Psychiatry, University of Toronto, Toronto, On; Adjunct research professor, Western University, London, On; Vice-President (Clinical), Canadian Sleep Society Scientific Program Committee

Fundraising Committee

- **John Peever, PhD**
- **Thanh DANG-VU, MD PhD FAASM**
- **Michael Mak, MD, FRCPC, FCPA, FAASM**
- **Florence Lambert-Beaudet**; M.A. candidate, School of Psychology, Laval University, Quebec, Qc; Strategic Meeting Design Administrator, Coordinator, Quebec Sleep Research Network, Executive Director, Canadian Sleep Society
- **Marina Vetrovec**, Strategic Meeting Designs
- **Roberta Dexter,** Strategic Meeting Designs

Scientific Committee

Chairperson:

- **Thanh DANG-VU, MD PhD FAASM**

Committee Members:

- **Adrien Peyrache, PhD**; Associate professor, Montreal Neurological Institute, McGill University, Montreal, Qc ; Co-Director, Quebec Sleep Research Network
- **Colin Massicotte, RPSGT**; Team lead, Sleep Laboratory Division of Respiratory Medicine, Sickkids, Toronto, On
- **Indra Narang, B.Med.Sci., MBBCH, MD**; Interim Executive Lead, Strategic Advisor, Equity, Diversity and Inclusion (EDI), Sickkids, Toronto, On ; Associate Chair, Faculty Development and EDI, Department of Paediatrics, Sickkids, Toronto, On; Professor of Paediatrics, Termerty Faculty of Medicine, Toronto, On
- **John Peever, PhD**
- **Marc Baltzan, MDCM, FRCPC, FAASM**; Staff Physician, St Mary's Hospital, Montreal, Qc; Specialist Physician, Mount Sinai Hospital, Montreal, Qc; Adjunct Professor, Faculty of Medicine, McGill University, Montreal, Qc
- **Michael Mak, MD, FRCPC, FCPA, FAASM**
- **Mona Moda, BDS, MSc. Ortho, MHSC, Dipl. Ortho, PhD, FRCD(C), D. ABO, D. ABDSM**; Academic Researcher, Faculty of Dentistry, University of British Columbia
- **Nadia Gosselin, PhD**; Neuropsychologist, Associate professor, Department of Psychology, Université de Montréal, Montreal, Qc; CARSM Scientific Director, CIUSSS-NIM, Montreal, Qc; Co-Director, Quebec Sleep Research Network
- **Sachin Pendharkar, MD, MSc, FRCPC, DRCPSC**; Associate Professor, Cumming School of Medicine, Department of Medicine | Respiratory Medicine, University of Calgary, Calgary, Ab; Associate Professor, Cumming School of Medicine, Department of Community Health Sciences, University of Calgary, Calgary, Ab; Medical Director, Foothills Medical Centre, Sleep Centre, Calgary, Ab
- **Sheila Garland, PhD, R Psych.**; Clinical Psychologist and Associate Professor of Psychology and Oncology, Memorial University of Newfoundland, St. John's, Newfoundland

Primary Care CME Program Committee
Program Co-Chairs:

- **Thanh DANG-VU, MD PhD FAASM**
- **Michael Mak, MD, FRCPC, FCPA, FAASM**

Committee Member:

- **Clodagh Ryan, MD, MB BChBAO, MD**; Assistant Professor, University of Toronto, Toronto, On; Affiliate Scientist, KITE Research Institute, Toronto, On

Dental CME Program Committee
Co-Chairs:

- **Tina Meisami, BSc, DDS, FRCDC, ABDSM;** Maxillofacial and Sleep Surgeon, Yorkville Oral and Maxillofacial Surgery, Toronto, On ; Director Sleep Medicine, University Health Network, Division Dentistry, Toronto Rehab Institute, Toronto, On; Staff Surgeon, North York General Hospital, Toronto, On
- **Nelly Huynh, PhD**; Assistant Professor under grant, Faculty of Dentistry, Oral Health Department, University of Montreal and the CHU Sainte-Justine Research Center, Montreal, Qc; Coordinator, Orthodontic Axis for the GramDENT (Clinical Research), Faculty of Dentistry, University of Montreal, Montreal, Qc

Trainee Day Committee
Co-Chairs:

- **Tanya Leduc**; PhD candidate, Université de Montréal, Montreal, Qc; Member-at-large (Sr. Student Representative), Canadian Sleep Society
- **Emily Wildeboer**; PhD candidate, Dalhousie University, Halifax, Ns

Committee Members:

- **Justine Fortin-Houde**, University of Montreal
- **Axelle Khouma**, Laval University
- **Samantha Mombelli**, University of Montreal

English Technologist Program Committee
Co-Chairs:

- **Santixay Homsombath, BSc, RPSGT, RST, CCSH;** Polysomnographic technologist, Foothills Medical Centre, Alberta Health Services, Calgary, Ab
- **Colin Massicotte, RPSGT**; Team lead, Sleep Laboratory Division of Respiratory Medicine, Sickkids, Toronto, On

French Technologist Program Committee
Chair:

- **Élyse Chevrier, RPSGT**; Medical Electrophysiology Technologist, Sleep Disorders Clinic at Rivière des-Prairies Hospital, Montreal, Qc

Local Host Committee:

- **Thanh DANG-VU, MD PhD FAASM**
- **Joanna Wai Ling Ma, MBA**; Regional Marketing Project Leader, Eisai
- **Nelly Huynh, PhD**
- **Alyssa Pozzbon**; PhD Candidate, University of Ottawa, Ottawa, On; Member-at-large (Jr. Student Representative), Canadian Sleep Society
- **Célyne Bastien, PhD**; Professor, School of Psychology, Laval University, Quebec, Qc; Researcher, CERVO, Quebec, Qc; Co-Investigator, Insomnia & Mental Health, Canadian Sleep Research Consortium; Past President, Canadian Sleep Society
- **Florence Lambert-Beaudet**

Communications Committee:

- **Armin Rahmani, MD, FRCPC, DRCPSC**; Psychiatrist, Sleep Medicine Specialist, Department of Psychiatry and Internal Medicine, Markham Stouffwille Hospital, Oak Valley Health, Markham, On Communications Officer, Canadian Sleep Society | Société canadienne du sommeil

Behavioural Sleep/CBT-I Program
Chairperson:

- **Judith R. Davidson, Ph.D., C. Psych** ; Clinical and Health Psychologist Somnologist (ESRS): Behavioural Sleep Medicine & Adjunct Professor, Queen's University

Committee Member:

- **Sheila Garland, PhD, R Psych**.

2025 AWARD WINNERS

The Canadian Sleep Society is pleased to announce the 2025 Society Awards will be presented in the opening ceremonies. The awards are adjudicated by a Selection Committee composed of CSS Board Members and former award recipients.

Canadian Sleep Society | Société Canadienne du Sommeil

2025 CANADIAN SLEEP SOCIETY 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. The Executive Committee of the CSS determines the Distinguished Scientist Award nominee.

CONGRATULATIONS TO THE 2025 DISTINGUISHED SCIENTIST

DR JOHN FLEETHAM

SESSION TITLE: WHAT'S NEW IN THE DIAGNOSIS AND TREATMENT OF OBSTRUCTIVE SLEEP APNEA

DATE/TIME: Opening Keynote Presentation | March 14, 2025 | 4:30 PM Eastern Time

Biography: Dr. John Fleetham is a professor and a clinician-scientist at the University of British Columbia He has an extensive publication record, and his research has been acknowledged by a variety of international and national awards and in 2023 he was named to the Order of Canada. He has served in a variety of international, national and local leadership positions and is the former Associate Head of the UBC Department of Medicine, UBC/VGH Respiratory Divisions and Vancouver Coastal Health Sleep Disorder Program.

The winner will receive the award during the opening ceremonies and award presentations on Friday, March 14, 2025, starting at 4 pm Eastern Time.

Past Winners: 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
2021	Julie Carrier
2023	Charles Morin and John Peever

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.

Congratulations to the 2025 Roger Broughton Young Investigator Award Winner: Shady Rahayel

BIOGRAPHY:

Shady Rahayel, PsyD PhD

I'm a clinical sleep psychologist and neuropsychologist specializing in geriatric medicine, assistant professor at the Université de Montréal and neuroimaging researcher at the Centre for Advanced Studies in Sleep Medicine. My research program focuses on imaging biomarkers and neurodegenerative mechanisms leading to Parkinson's disease and dementia with Lewy bodies. I study a specific sleep disorder called Isolated REM Sleep Behavior Disorder, which is associated with the development of these diseases. My lab uses brain MRI approaches, clinical assessments and computational analyses to answer our questions. We manage an international initiative dedicated to the imaging study of this sleep disorder. My work has been published in journals such as Brain and Neurology, and has received over 50 awards and honors.

The winner will receive the award during the opening ceremonies and award presentations on Friday, March 14, 2025, starting at 4 pm Eastern Time.

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
2021 Guido Simonelli
2023 Rebecca Robillard

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.

Congratulations to the 2025 Canadian Sleep Society Trainee Outstanding Achievement Award Winner: Nic van den Berg

BIOGRAPHY: I completed my PhD in Experimental Psychology at the University of Ottawa under the supervision of Dr. Stuart Fogel. Through neuroimaging techniques (fMRI, EEG), my thesis work showed that sleep enhances memory consolidation for cognitive strategies and problem-solving skills, as shown at the neural and functional level, with a specific focus on both the hippocampal-striatal-prefrontal/motor cortical network, and on how REM sleep (and specifically, the distinction between phasic and tonic REM sleep) is involved in this process.

Nic van den Berg, PhD

Currently, I am a postdoctoral researcher studying sleep in isolated, confined and extreme (ICE) environments at the Royal Military Academy, Brussels, Belgium, under the supervision of Dr. Nathalie Pattyn. I am applying my neuroimaging skills into the "natural laboratory" applied field environment. Our lab liaises with Dr. Guido Simonelli's lab at the CIUSSS-NÎM (Montreal) to support our international projects in ICE environments, including in Canada, Belgium, Norway, Finland, Argentina, and Antarctica.

The winner will receive the award during the opening ceremonies and award presentations on Friday, March 14, 2025, starting at 4 pm Eastern time.

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

2009 Patti Brooks
2011 Ari Shecter and Émilie Fortier-Brochu
2013 Jennifer Lapierre
2015 Kevin Grace
2017 Richard Boyce and Samuel Laventure
2019 Erlan Sanchez
2021 Claudia Picard-Deland and Véronique Latreille
2023 Shady Rahayel

CSS TECHNOLOGIST SERVICE AWARD

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

2025 TECHNOLOGIST SERVICE AWARD WINNER: RUI DE SOUSA

Past Winners of the Technologist Service Award:

2016 Michael Eden
2017 Laree Fordyce
2021 AnDrea Siemens
2023 Colin Massicotte

The winner will receive the award during the opening ceremonies and award presentations on Friday, March 14, 2025, starting at 4 pm Eastern Time.

CSS STUDENT ABSTRACT COMPETITION

Each year the CSS holds a competition for CSS student members for the best abstract submitted to either SLEEP in the US, 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 2025 Conference.

STUDENT ABSTRACT PRIZE WINNER: Arsenio Paez

Abstract: *#154, Sleep Spindles and Slow Oscillations Predict Neurofilament-Light, Neurogranin 36, Chitinase-3-Like Protein-1 and Cognition in Mild to Moderate Alzheimer's Disease.*

The winner will receive the award during the opening ceremonies and award presentations on Friday, March 14, 2025, starting at 4 pm Eastern Time.

2025 Canadian Sleep Society Conference

GENERAL SCIENTIFIC PROGRAM

March 14-16, 2025

Canadian Sleep Society | Société Canadienne du Sommeil

MONTRÉAL 12e Congrès de la SCS C'est l'heure de parler de sommeil.
MONTRÉAL 12th CSS Congress It's time to talk about sleep.

GENERAL SCIENTIFIC PROGRAM

Wifi Password: cssscs25

DOWNLOAD ATTENDEE APP

FRIDAY, MARCH 14, 2025

4:00-4:30 PM
Welcome

4:30-5:15 PM
KEYNOTE: *What's New in the Diagnosis and Treatment of Obstructive Sleep Apnea*
PRESENTED BY: John Fleetham, 2025 CSS DISTINGUISHED SCIENTIST

5:15-6:00 PM
KEYNOTE: *New Development in Narcolepsy And Hypersomnia Research*
PRESENTED BY: Emmanuel Mignot

6:00-8:00 PM
WELCOME RECEPTION IN EXHIBIT HALL

SATURDAY, MARCH 15, 2025

7:00 - 8:15 AM
BREAKFAST SYMPOSIUM: *A BREATH OF FRESH AIR - Innovative Approaches and Practice for Optimal Patient Care in COMISA*
Sponsored by EISAI

8:30-9:45 AM
SYMPOSIUM: *Advances in the Management of EDS in Narcolepsy: Connecting Treatment Approaches for Pediatric and Adult Patients*

9:45-10:30 AM
KEYNOTE: *The Nuts and Bolts of Sleep: Insights from Genetic Analysis*
PRESENTED BY: Amita Sehgal

11:00 AM-12:30 PM
SYMPOSIUM 1: Glial Cells Responding to Sleep Loss and Regulating Sleep
SYMPOSIUM 2: Sleep and Stroke: An Evidence-Based Clinical Update
SYMPOSIUM 3: Towards An Improved Understanding Of Fatigue In Insomnia: New Directions For Assessment and Treatment
ORAL SESSION 1: Pediatric Sleep: From Infancy to Adolescence
ORAL SESSION 2: Sleep, Aging and Neurodegeneration

12:30-2:00 PM
Lunch, Exhibit Hall and Poster Session 1

12:45-1:45 PM
SYMPOSIUM: *Seize The Night and Day - Latest Experience In Targeting Hyperarousal For Insomnia Management*
Sponsored by Idorsia

2:00-3:30 PM
SYMPOSIUM 4: Isolated REM Sleep Behavior Disorder: Clinical Aspects, Neural Underpinnings, and Imaging Markers
SYMPOSIUM 5: Shift Work Interactions With Sleep and Occupational Health And Safety: A Systemic Overview
SYMPOSIUM 6: Alternative Treatments and Care Pathways for Obstructive Sleep Apnea
ORAL SESSION 3: Insomnia
ORAL SESSION 4: Sleep Physiology: From Measurements to Memory Consolidation

3:45-4:30 PM
KEYNOTE: *Sleep Science Revolution: AI-Enhanced Wearables for Accurate Sleep Staging and Therapy*
PRESENTED BY: Manuel Schabus

4:30-5:15 PM
KEYNOTE: *Sleep, Physical Activity, and Brain Health*
PRESENTED BY: Teresa Liu-Ambrose

7:30-10:00 PM
CASINO ROYALE: GALA FUNDRAISER

MONTRÉAL 12e Congrès de la SCS C'est l'heure de parler de sommeil.
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GENERAL SCIENTIFIC PROGRAM

Wifi Password: cssscs25

DOWNLOAD ATTENDEE APP

SUNDAY, MARCH 16, 2025

8:30-9:15 AM
KEYNOTE: *Sleep in Youth - Developmental Trajectories, Links to Family Factors And Prediction of Cognitive Outcomes*
PRESENTED BY: Annie Bernier

9:15-10:00 AM
KEYNOTE: *Interplay Of Circadian Rhythms and Sleep On Brain And Cardiometabolic Health*
PRESENTED BY: Phyllis Zee

10:30 AM-12:00 PM
SYMPOSIUM 8: Harnessing The Power of Sleep EEG Biomarkers Towards Better Characterizing Sleep Disorders and Related Conditions
SYMPOSIUM 9: The Role of REM Sleep in Cognitive Abilities and Emotional Health: From Motor Learning to Depression Treatment
SYMPOSIUM 10: AI and Sleep: A Synergistic Approach to Understanding and Modeling Neural Dynamics
SYMPOSIUM 11: Larger Than Light: Rethinking Sleep Disruption in Isolated, Confined, and Extreme (ICE) Environments
ROUNDTABLE: CTS/CSS Pediatric Obstructive Sleep Apnea Diagnosis Guidelines
ORAL SESSION 5: Sleep Health and Insomnia: From Assessments to Interventions
ORAL SESSION 6: Basic Science of Sleep and Circadian Rhythms

12:00-2:00 PM
Lunch, Exhibit Hall and Poster Session 2

12:15-1:45 PM
SYMPOSIUM: Sleep Matters – Exploring the Link Between Sleep and Neurodegenerative Diseases of Aging
Presented by Weston Family Foundation

2:00-3:30 PM
SYMPOSIUM 12: Look Before You Leap: Imaging for Upper Airway Assessment to Guide Management of Obstructive Sleep Apnea (OSA)
SYMPOSIUM 13: You've Got Options! Novel Open-Source Toolkits for Advanced Polysomnography Analyses
SYMPOSIUM 14: Translating Evidence into Care for Insomnia Disorder: From Provincial Standards of Care to a National Stepped Care Model
SYMPOSIUM 15: Advances in Closed-Loop Stimulation of Sleep Spindles
SYMPOSIUM 16: Advances in Canadian Perinatal and Infant Sleep Research for Families
ORAL SESSION 7: Sleep Apnea and Central Disorders of Hypersomnolence

3:45-4:30 PM
KEYNOTE: *Sleep and Health: Upstream Determinants and Downstream Consequences and Conference Closing*
PRESENTED BY: Michael Grandner

4:30-5:00 PM
CLOSING AND AWARDS

MONTRÉAL

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2025 CSS-SCS 12TH NATIONAL CONGRESS

2025 KEYNOTE PRESENTERS

ANNIE BERNIER
UNIVERSITY OF MONTREAL

JOHN FLEETHAM
UNIVERSITY OF BRITISH COLUMBIA

MICHAEL GRANDNER
UNIVERSITY OF ARIZONA

TERESA LIU-AMBROSE
UNIVERSITY OF BRITISH COLUMBIA

EMMANUEL MIGNOT
STANFORD UNIVERSITY

MANUEL SCHABUS
UNIVERSITY OF SALZBURG

AMITA SEHGAL
UNIVERSITY OF PENNSYLVANIA

PHYLLIS ZEE
NORTHWESTERN UNIVERSITY

sleepconference.ca

March 14-16, 2025

Canadian Sleep Society | Société Canadienne du Sommeil

2025 Canadian Sleep Society Conference

GENERAL SCIENTIFIC PROGRAM
DETAILED AGENDA

March 14-16, 2025

GENERAL SCIENTIFIC PROGRAM | FRIDAY, MARCH 14, 2025

CONFERENCE OPENING AND AWARDS PRESENTATIONS

March 14, 4:00 PM - 4:30 PM

Speakers:

John Peever, University of Toronto

Michael Mak, Sleep Medicine Specialist, Staff Psychiatrist, Assistant Professor, University of Toronto

Thien Thanh Dang-Vu, Professor, Concordia University

WHAT'S NEW IN THE DIAGNOSIS AND TREATMENT OF OBSTRUCTIVE SLEEP APNEA

KEYNOTE 1: JOHN FLEETHAM, PROFESSOR, CLINICIAN, SCIENTIST, UNIVERSITY OF BRITISH COLUMBIA

March 14, 4:30 PM - 5:15 PM

About the Session

This session will review some of the recent developments in the diagnosis and management of obstructive sleep apnea.

Learning Objectives

- Explain the recent developments in the diagnosis and management of obstructive sleep apnea.
- Compare the different treatments of obstructive sleep apnea.
- Identify the symptoms of obstructive sleep apnea.

NEW DEVELOPMENT IN NARCOLEPSY AND HYPERSOMNIA RESEARCH

KEYNOTE 2: EMMANUEL MIGNOT, CRAIG REYNOLDS PROFESSOR OF SLEEP MEDICINE, DIRECTOR OF THE STANFORD CENTER FOR NARCOLEPSY | STANFORD UNIVERSITY

March 14, 5:15 PM - 6:00 PM

About the Session

In this presentation, we will discuss how technology such as EEG, wearables, high throughput proteomics, immunology and genetics coupled with deep learning and improved statistical methods are transforming our understanding of narcolepsy and hypersomnia. For narcolepsy type 1 (NT1), we will suggest that the future for diagnosis may be multimodal detection of the phenotype using questionnaire and wearables. Use of a blood test that would identify the immune cause of narcolepsy, or a lack of orexin metabolites in blood may also be possible. For narcolepsy type 2 (NT2) and Idiopathic Hypersomnia (IH), pathologies that are not easily distinguishable and complex, we propose a return to physiology. This will involve identification of EEG and wearable biomarkers associated with microsleep, sleep inertia or other symptoms. Further, we propose a theoretical framework where disturbed circadian rhythmicity, insufficiently restorative sleep or deficient wake promotion mediates daytime sleepiness in various proportion in these patients. Identifying these sub-causes and their contribution to each patient may be possible through the development of new biomarkers such as a panel of proteins, although wearables and other techniques may also be usable. Improved phenotyping of NT2 and

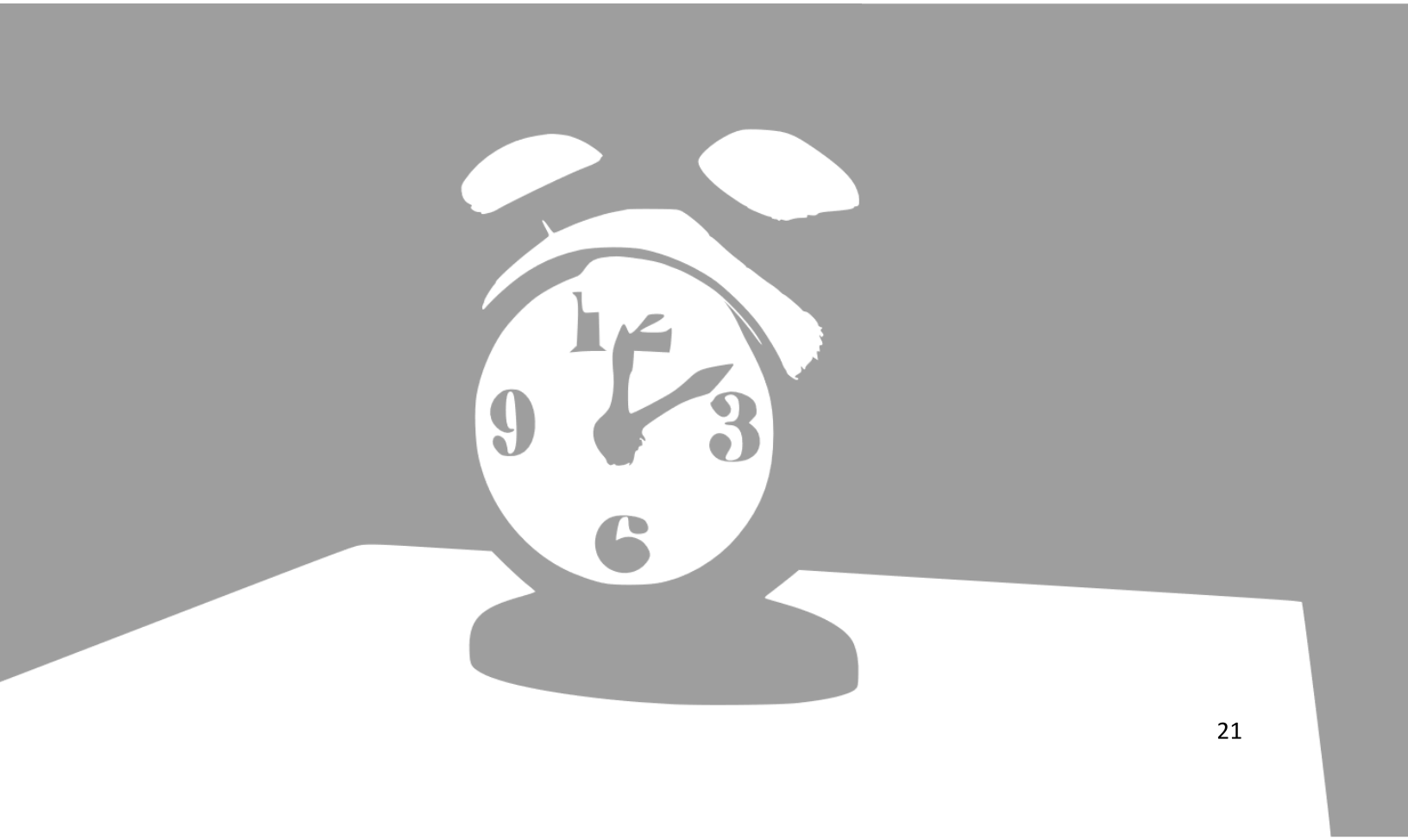
IH is likely to become increasingly critical to the ever-growing selection of therapeutic options that are under investigation such as melatonin agonists, orexin receptor agonists, novel oxybate formulations and H3 antagonists.

Learning Objectives

- Explain the role of advanced technologies such as EEG, wearables, high thought-put proteomics, immunology, genetics, and deep learning in transforming the understanding and diagnosis of narcolepsy and hypersomnia.
- Evaluate the potential impact of new biomarkers (e.g., protein panels, EEG, and wearable data) on improving diagnosis and personalized treatment strategies for narcolepsy type 2 and idiopathic hypersomnia.
- Describe emerging strategies for phenotyping narcolepsy type 2 (NT2) and idiopathic hypersomnia (IH), focusing on the use of EEG and wearable biomarkers, and explore how circadian rhythms disturb insufficiently restorative sleep, and deficient wake promotion contribute to daytime sleepiness in these disorders.

WELCOME RECEPTION WITH SPONSORS AND EXHIBITORS

March 14, 6:00 PM - 8:00 PM



A BREATH OF FRESH AIR: INNOVATIVE APPROACHES AND PRACTICE FOR OPTIMAL PATIENT CARE IN COMISA

March 15, 7:00 AM - 8:15 AM *(Breakfast available for session participants)*

Speakers:

Marie-Hélène Geoffroy, Family Physician, ExcelleMD
Ran (Richard) Liu, Neurologist, Sunnybrook Health Sciences Centre, Medsleep
Raymond Gottschalk, Site Lead for the Sleep Medicine Training Program (Frid Street Location), Sleep disorders clinic

About the Session

Join us for an enlightening breakfast symposium, "A Breath of Fresh Air," focused on Co-morbid Insomnia and Sleep Apnea (COMISA). This event aims to equip healthcare professionals with the latest knowledge and practical strategies to enhance patient care in this challenging area.

Understand the Diagnostic Criteria, Prevalence, and Impact of COMISA: Gain a comprehensive understanding of COMISA, where insomnia and sleep apnea coexist, complicating diagnosis and treatment. Learn about the diagnostic criteria, prevalence in various populations, and its profound impact on patients' quality of life and overall health.

Examine Current Scientific Literature on COMISA: Explore the latest research and scientific literature on COMISA. This session will review recent studies, highlighting key findings and advancements in understanding the pathophysiology, risk factors, and long-term consequences of COMISA.

Discuss Management Strategies for COMISA: Engage in discussions on managing COMISA, focusing on practical clinical guidance and evidence-based strategies. Learn from experts about best practices, including behavioral therapies, pharmacological interventions, and continuous positive airway pressure (CPAP) therapy. This session aims to provide actionable insights to optimize patient outcomes and improve their quality of life.

This symposium is a valuable opportunity for healthcare professionals to stay at the forefront of COMISA management, ensuring they are well-equipped to provide optimal care for their patients. Don't miss this chance to enhance your clinical practice with cutting-edge knowledge and innovative approaches.

Learning Objectives

- Understand the Diagnostic Criteria, Prevalence, and Impact of COMISA.
- Examine Current Scientific Literature on COMISA.
- Discuss Management Strategies for COMISA.

GENERAL SCIENTIFIC PROGRAM | SATURDAY, MARCH 15, 2025

ADVANCES IN THE MANAGEMENT OF EDS IN NARCOLEPSY: CONNECTING TREATMENT APPROACHES FOR PEDIATRIC AND ADULT PATIENTS

March 15, 8:30 AM - 9:45 AM
Scientific Symposium
Symposium Chairperson: Michael Mak, Centre for Addiction and Mental Health, University of Toronto
Symposium Presenters:
Atul Khullar, Psychiatrist, Sleep Specialist, Medsleep Edmonton/University of Alberta
Emmanuel Mignot, Craig Reynolds Professor of Sleep Medicine, Director of the Stanford Center for Narcolepsy, Stanford University
Indra Narang, University of Toronto
About the Session
1st Talk Learning Objective : Explore the Current Landscape of Adult Narcolepsy : Analyze challenges, diagnostic trends, and treatment pathways specific to adult patients. Speaker: Dr. Atul Khullar
2nd Talk Learning Objective: Examine Pediatric Challenges in Narcolepsy Management, Identify unique diagnostic and therapeutic challenges in pediatric populations, including early intervention strategies. Speaker: Dr. Indra Narang
3rd Talk Learning Objective: Discuss the Latest Advances in Narcolepsy Treatment: Discuss emerging therapies, pharmacological innovations, and future directions across all age groups. Speaker: Dr. Emmanuel Mignot
Learning Objectives

- Analyze challenges, diagnostic trends, and treatment pathways specific to adult patients.
- Identify unique diagnostic and therapeutic challenges in pediatric populations, including early intervention strategies.
- Discuss emerging therapies, pharmacological innovations, and future directions across all age groups.

THE NUTS AND BOLTS OF SLEEP: INSIGHTS FROM GENETIC ANALYSIS

KEYNOTE 3: AMITA SEHGAL, PROFESSOR, MOLECULAR BIOLOGIST AND CHRONOBIOLOGIST, UNIVERSITY OF PENNSYLVANIA
March 15, 9:45 AM - 10:30 AM
About the Session
Sleep remains a major mystery of biology. Why we spend ~a third of our lives sleeping and what it is that makes us sleepy are major questions about sleep that lack satisfactory answers. There is universal agreement that lack of sleep impairs performance, especially cognitive ability, during waking hours and considerable evidence supports adverse effects of sleep loss on other physiological parameters as well. Thus, sleep may be regarded as important for waking function. However, what happens during sleep to facilitate wake performance and promote

health? Driven by the successful use of Drosophila for deciphering molecular mechanisms of the circadian clock, we developed a Drosophila model to address molecular and cellular underpinnings of sleep. Through the use of forward genetic screens, we have identified genes and tissues that affect sleep amount. Coupled with tests of candidate hypotheses for sleep function, we are starting to get a handle on cellular functions of sleep that may be broadly relevant for the brain, and perhaps even the body. In general, we find that sleep is important for metabolic homeostasis, which includes the clearance of metabolic waste. Together this work is leading to an understanding of cellular/molecular processes that underlie sleep.

Learning Objectives

- Explain the molecular and cellular mechanisms underlying sleep.
- Evaluate the importance of genetic analysis in sleep research.
- Discuss possible functions of sleep.

HEALTH BREAK AND EXHIBIT HALL

March 15, 10:30 AM - 11:00 AM

SYMPOSIUM 1: GLIAL CELLS RESPONDING TO SLEEP LOSS AND REGULATING SLEEP

March 15, 11:00 AM - 12:30 PM

Chairpersons:

Tanya Leduc - Université de Montréal, Montréal, Canada

Kazue Semba - Dalhousie University, Halifax, Canada

Discussants:

Don Van Meyel - McGill University, Montréal, Canada

Title of Contribution Regulation of Drosophila Sleep Through Transport and Metabolism of Neuromodulators by Distinct Glial Cell Types

Kazue Semba - Dalhousie University, Halifax, Canada

Title of Contribution Sleep history-dependent astrocytic structural remodeling at synapses to orexin neurons in the lateral hypothalamus

Marcos Frank - Washington State University, Pullman, USA

Title of Contribution Astrocytes: complex partners in sleep expression and drive

Valérie Mongrain - Université de Montréal, Montréal, Canada

Title of Contribution Interrogating glial cells to understand sleep/wake disturbances in an AD mouse model

Symposium Description:

Although long hypothesized even by Ramon y Cajal, the evidence for the involvement of glial cells in sleep-wake regulation only started to emerge over the last 20 years. Indeed, the release of ATP by astrocytes, now referred to as gliotransmission, was shown to participate in sleep-wake homeostasis through the adenosine pathway (Halassa et al., Neuron. 2009). There is now a growing body of literature demonstrating a crucial role for glia, especially astrocytes, in regulating vigilance states from timing and duration to the type of cerebral activity detected at the electroencephalogram level as a measure of sleep depth. The glial control of the physiological response to sleep loss has also been progressively clarified, and mechanisms for glial cells in synaptic regulation involved in sleep/wake regulation are beginning to be

elucidated. This symposium will recruit experts on glia-dependent sleep regulation who will present their recent discoveries in these areas across species. The session will end with a talk showcasing research on astrocytic dysfunctions in an Alzheimer's disease mouse model and potentially related sleep-wake disturbances, emphasizing the relevance of this field for numerous neurological disorders. Overall, this symposium will highlight recent discoveries in a rising field of fundamental sleep-wake regulation with clinical implications, with focus on glia, which have now been recognized as major players and partners of neurons in various physiological functions and behaviors in both health and disease. Importantly, speakers will include both local, Canadian, and international researchers.

Learning Objectives

- Describe recent discoveries on the role of astrocytes in regulating vigilance states and their response to sleep loss.
- Explain fundamental sleep-regulation mechanisms studied in various models and their relevance to sleep disorders.
- Identify how astrocytes may contribute to sleep disturbances in neurological disorders like Alzheimer's disease.

SYMPOSIUM 2: SLEEP AND STROKE: AN EVIDENCE-BASED CLINICAL UPDATE

March 15, 11:00 AM - 12:30 PM

Chairperson: Mark I. Boulos, University of Toronto, Toronto, Canada

Discussants

Mark I. Boulos, University of Toronto, Toronto, Canada

Title of Contribution Exploring pathophysiological links between sleep apnea & other sleep disorders with stroke

Michael Grandner, University of Arizona, Tucson, USA

Title of Contribution Exploring the relationship of insomnia & COMISA with stroke

Phyllis C. Zee, Northwestern University, Chicago, USA

Title of Contribution Detecting sleep disorders in stroke patients using novel ambulatory methods

Clodagh M. Ryan, University of Toronto, Toronto, Canada

Title of Contribution Improving non-vascular outcomes in stroke survivors via treatment of sleep apnea

R John Kimoff, McGill University, Montreal, Canada

Title of Contribution Rationale and approach to treating sleep apnea to prevent future stroke & other vascular events

Symposium Description:

Sleep disorders are common, treatable and increase the risk of stroke. Several pathophysiological mechanisms link sleep disorders with stroke. Despite the high prevalence of sleep disorders in patients with stroke, and the vulnerability of these patients to adverse health outcomes, sleep disorders are often underrecognized and undertreated in clinical practice.
In this symposium, we will describe pathophysiological mechanisms that link sleep disorders with stroke. We will review novel ambulatory techniques that may facilitate the diagnosis of sleep disorders in individuals with stroke. Moreover, we will explain the rationale for treating

sleep apnea after stroke to improve non-vascular outcomes as well as potentially reduce the risk of future vascular events.

Learning Objectives

- Describe pathophysiological links between different sleep disorders with stroke.
- Identify ambulatory methods that can diagnose sleep disorders in individuals with stroke.
- Explain the rationale for treating sleep apnea after stroke to improve non-vascular outcomes and vascular health.

SYMPOSIUM 3: TOWARDS AN IMPROVED UNDERSTANDING OF FATIGUE IN INSOMNIA: NEW DIRECTIONS FOR ASSESSMENT AND TREATMENT

March 15, 11:00 AM - 12:30 PM

Chairperson: Nicole Carmona, York University, Toronto, Canada

Discussants

Alexandria Muench, University of Pennsylvania, Philadelphia, USA

Treating Insomnia and Cancer-Related Fatigue: Clinical Insights and Outcomes

Sheila Garland, Memorial University of Newfoundland, St. John's, Canada

Secondary Improvements in Fatigue after Cognitive Behavioural Therapy for Insomnia in Cancer Survivors

Nicole E Carmona, York University, Toronto, Canada

An Investigation of Fatigue and Cognitive Disengagement in Insomnia

Colleen E Carney, Toronto Metropolitan University, Toronto, Canada

Discussion: Current Insights and Future Directions

Symposium Description:

Fatigue is one of the most frequently reported daytime symptoms among those with insomnia disorder, contributing to reduced quality of life and perceived daytime impairments. Despite the frequency of fatigue-related complaints, the construct of fatigue remains poorly understood by patients and providers alike; fatigue is often inappropriately conflated with overlapping but distinct states such as sleepiness, boredom, and amotivation. Furthermore, among recipients of CBT-I, fatigue has been found to influence adherence to treatment components, early response to treatment, and perceptions of the degree of insomnia improvement at the end of treatment. Nevertheless, meta-analyses have found that CBT-I does not consistently lead to improvements in fatigue. Collectively, this suggests that an improved understanding of fatigue is necessary among sleep medicine providers who work with people with insomnia. This symposium describes the latest research on approaches to conceptualizing and treating fatigue in those with insomnia disorder and seeks to bridge the gap between basic and clinical science in fatigue research. Topics will include a discussion of different types of fatigue, its determinants, and how they differ from other overlapping states; an experimental investigation of a cognitive model of fatigue in those with insomnia, focused on appraisals and beliefs about resources and their relationship to cognitive functioning; and results from two clinical trials among cancer patients with insomnia discussing treatment dose and fatigue response, the importance of measuring fatigue in insomnia trials, and lessons from treating cancer-related fatigue. The importance of the findings from this symposium is underscored by

the implications they have on both the assessment and treatment of fatigue in those with insomnia disorder.

Learning Objectives

- Describe different types of fatigue and their determinants, and differentiate fatigue from other similar states (e.g., sleepiness).
- Apply cognitive and behavioural principles to improve fatigue in insomnia.
- Evaluate the efficacy of current insomnia treatments on improving fatigue and consider different adjunctive strategies to reliably improve fatigue in this population.

ORAL SESSION 1: PEDIATRIC SLEEP: FROM INFANCY TO ADOLESCENCE

March 15, 11:00 AM - 12:30 PM

Oral Session Chairperson: Indra Narang, University of Toronto

Abstracts to be presented:

The abstracts listed in the table below are arranged in the order in which they will be presented during the oral session.

Submission Id	Abstract Title | Titre du résumé	Presenting Author
176	Psychiatric Admissions of Children and Adolescents with Depression Across Periods Daylight-Saving Transitions: a Follow-up Study	Joseph De Koninck
40	Transition from Biphasic Sleep to Monophasic Sleep: Identification and Characterization of Napping Patterns	Lucie Malevergne
47	The Effect of Delaying School Start in Adolescence : A Control Trial With Actigraphy in a French Boarding School.	Eve Reynaud
172	High Night-to-Night Variability in Childhood Obstructive Sleep Apnea Severity	Lena Xiao
193	To Meet or Not to Meet the NSF Recommendation for Total Sleep Duration at 6 Months: Preliminary Results on the Associations With Sleep Patterns at 6 and 12 Months	Marjolaine Chicoine
43	Evaluation of a New Threshold for Positive Airway Pressure Therapy Adherence in Paediatric Populations	Shania Sheth
167	The Association Between Chronotype and Positive Airway Pressure Adherence in Children	Lena Xiao
54	Development and Preliminary Validation of the Pediatric Behavioural Sleep Knowledge Questionnaire and the Sleep, Attitudes, and Beliefs Scale for Multidisciplinary Healthcare Providers	Emily Wildeboer
129	Frequency and Determinants of Non-Application of Infant Sleeping Recommendations at 2 Months in French Overseas Territories Using Data From the ENP-DROM 2021 Survey	Sabine Plancoulaine
90	Bedtime Medication in Autistic, ADHD Children and Adolescents Referred to a Pedopsychiatric Sleep Clinic	Marjolaine Chicoine

ORAL SESSION 2: SLEEP, AGING AND NEURODEGENERATION

March 15, 11:00 AM - 12:30 PM

Oral Session Chairpersons:

Véronique Daneault, M.Sc., Ph.D., Hôpital du Sacré-Coeur de Montréal, CÉAMS

Celine Haddad, Université de Montréal

Abstracts to be presented:

The abstracts listed in the table below are arranged in the order in which they will be presented during the oral session.

Submission Id	Abstract Title | Titre du résumé		Presenting Author
31	L'eau libre dans l'amygdale comme marqueur pronostique dans le trouble du comportement en sommeil paradoxal isolé ** Please note that this presentation will be in French*		Véronique Daneault
6	Prediction of Phenoconversion in Isolated REM Sleep Behavior Disorder Using Free Water Imaging: A Longitudinal, Multicentre, Prospective Cohort Study.		Celine Haddad
194	The Effects of Age and Sleep on Anxiety and Stress Within the Context of the COVID-19 Pandemic		Victoria Klimkowski
14	Sex Effect on Cortical Neurodegeneration Associated With Isolated REM Behavior Disorder		Marie Filiatrault
60	Associations Between Brain Cholinergic Denervation and Rapid Eye Movement Sleep EEG in Older Adults With and Without Cognitive Impairment		Claire André
83	Sleep Quality and Variability and β-Amyloid Pathology Among Cognitively Unimpaired Older Adults		Blandine Montagne
106	Altérations Des Gradients De Connectivité Anatomique Dans Le Trouble Comportemental Du Sommeil Paradoxal Isolé		Joseph Lefèvre López
21	Brain Connectivity Alterations in Idiopathic REM Sleep Behavior Disorder: A Multi-Cohort Study		Christina Tremblay
149	The Interplay Between Orexin, Neurodegeneration, Cognition and Sleep Microarchitecture in Mild to Moderate Alzheimer's Disease		Arsenio Paez
154	Sleep Spindles and Slow Oscillations Predict Neurofilament-Light, Neurogranin 36, Chitinase-3-Like Protein-1 and Cognition in Mild to Moderate Alzheimer's Disease.		Arsenio Paez

LUNCH, POSTER SESSION 1 AND EXHIBIT HALL

March 15, 12:30 PM - 2:00 PM

LUNCH SYMPOSIUM: SEIZE THE NIGHT AND DAY: LATEST EXPERIENCE IN TARGETING HYPERAROUSAL FOR INSOMNIA MANAGEMENT
March 15, 12:45 PM - 1:45 PM
Symposium Chairperson: Celyne Bastien, Professeure, School of Psychology, Laval University, Québec
Symposium Presenters:
Joseph Michaels, Hotel Dieu Shaver Hospital
Laura Palagini, Professor, University Hospital of Pisa, Italy
Learning Objectives

- Gain a comprehensive understanding of insomnia as a 24-hour condition and approach to management.
- Highlight how hyperarousal and the orexin system play an important role in chronic insomnia disorder.
- Acquire knowledge and insights from real-world experience.

POSTER SESSION 1
March 15, 1:00 PM - 2:00 PM

POSTER SESSION 1 - PEDIATRIC ABSTRACTS
March 15, 1:00 PM - 2:00 PM

SYMPOSIUM 4: ISOLATED REM SLEEP BEHAVIOR DISORDER: CLINICAL ASPECTS, NEURAL UNDERPINNINGS, AND IMAGING MARKERS
March 15, 2:00 PM - 3:30 PM
Chairperson: Shady Rahayel, University of Montreal, Montreal, Canada
Discussants:
Stephen Joza, University of Alberta, Edmonton, Canada
Title of Contribution Clinical risk factors and predictors of dementia and parkinsonism in isolated REM sleep behavior disorder
John Peever, University of Toronto, Toronto, Canada
Title of Contribution Disease mechanisms in REM sleep behaviour disorder: Insight from basic neuroscience
Shady Rahayel, University of Montreal, Montreal, Canada
Title of Contribution Computational MRI biomarkers of progression in isolated REM sleep behavior disorder
Symposium Description:
Isolated REM sleep behavior disorder (iRBD) is a parasomnia marked by abnormal motor behaviors during dreaming, often involving the physical enactment of dream content. More than 90% of individuals with iRBD will progress to a neurodegenerative synucleinopathy, such as Parkinson's disease or dementia with Lewy bodies, within 15 years. Given this high risk, iRBD patients already exhibit clinical and neural changes that are linked to these conditions. Understanding the clinical features of iRBD and its underlying neural mechanisms could provide insight into the early stages of synucleinopathies and their development.

In this symposium, we will present a comprehensive update on the latest clinical and mechanistic advances in iRBD research.
Dr. Stephen Joza (University of Alberta) will discuss the clinical characterization of iRBD, emphasizing his findings on how motor and cognitive abnormalities relate to the progression of synucleinopathies. He will highlight how clinical markers can be used to predict how and when iRBD will evolve to overt motor and cognitive disease.
Dr. John Peever (University of Toronto) will discuss the mechanistic aspects of REM sleep and REM sleep atonia. He will also highlight his research on animal models that explore the basic neuroscience underlying iRBD and its neural mechanisms. In particular, he will discuss how seeding the mouse gut and brain with diseased proteins that cause Parkonson's disease affect sleep-wake behaviour. Recent, although unpublished findings suggest that disease mechanisms in RBD are caused by the same pathological processes that lead to Parkinson's disease
Dr. Shady Rahayel (University of Montreal) will talk about brain biomarkers for iRBD and how computational imaging can be used to predict patient outcomes. He will highlight MRI-based approaches that identify neurodegenerative changes already present in iRBD patients, including patterns of brain tissue atrophy and region-specific inflammation.

Learning Objectives

- Identify the diagnostic criteria and key clinical features of iRBD.
- Explain the underlying neural mechanisms associated with iRBD.
- Discuss the latest advancements in the development of biomarkers in iRBD, particularly brain MRI and computational neuroscience.

SYMPOSIUM 5: SHIFT WORK INTERACTIONS WITH SLEEP AND OCCUPATIONAL HEALTH AND SAFETY: A SYSTEMIC OVERVIEW

March 15, 2:00 PM - 3:30 PM

Chairperson: Annie Vallières, Université Laval, Québec, Canada

Discussants:

Ghislaine Tirilly, Réseau étoile, Toulouse, France

Title of Contribution How shift workers' sleep and chronobiological rhythms are impacted by their work schedules

Aviroop Biswas, Institutes of work and Health, Toronto, Canada

Title of Contribution Daily activity and sleep pattern interactions with cardiovascular health

Mélanie Lefrançois, UQAM, Montreal, Canada

Title of Contribution Prevention of shift work effects on sleep at the workplace level: from scheduling to work activity analysis

Annie Vallières, Université Laval, Québec, Canada

Title of Contribution Psychosocial aspects of sleep in shift work and individual interventions

Symposium Description:

Shift workers represent 25 to 30 % of the employed population worldwide. Being a shift worker means working on any schedule outside the traditional 8 a.m. to 6 p.m. routine and having a life outside standard social hours, affecting all activities, including sleep.
Shift work significantly impacts occupational health and safety (OHS), particularly physical and mental well-being including workplace injuries. Among these impacts, insomnia and/or

excessive sleepiness related to the work schedule, known as Shift Work Disorder (SWD), affects approximately 26% of shift workers. SWD worsens both physical and mental health and increases workplace injuries. Insomnia further aggravates the overall clinical picture. The consequences of shift work, including its effects on sleep, may vary depending on the work context and characteristics. For instance, night shifts are associated with a higher risk of metabolic diseases, cancer, and car accidents.

To support evidence-based interventions, it is crucial to understand how work schedules impact sleep patterns and chronobiological rhythms. The role of shift work in physical health issues, such as cardiovascular diseases, is also important, as both sleep disruption and shift work are known contributors to cardiovascular risks. Additionally, considering the organizational context of shift work, including constraints on schedules, job content, and activities, is key to effective OHS prevention strategies.

This symposium highlights the various interactions between shift work, sleep, and OHS including impacts on chronobiological rhythms, the relationship between daily sleep and cardiovascular diseases, the psychosocial contributors to SWD, and psychological interventions for SWD and its effects on mental health. It aims to deepen the systemic understanding of shift work and its context while relating these issues to OHS, offering valuable insights to researchers interested, including chronobiologists, neuropsychologists, occupational physicians, and psychologists. The symposium will end with an interactive and open discussion.

Learning Objectives

- Recognize the link between shift work, sleep, and occupational health and safety.
- Identify the components of atypical work schedules that interact with occupational health and safety and sleep.
- Discuss facilitators and barriers to workplace interventions aimed at improving workers' sleep and occupational health and safety.

SYMPOSIUM 6: ALTERNATIVE TREATMENTS AND CARE PATHWAYS FOR OBSTRUCTIVE SLEEP APNEA

March 15, 2:00 PM - 3:30 PM

Chairpersons:

Lena Xiao, British Columbia Children's Hospital, Vancouver, Canada

Indra Narang, The Hospital for Sick Children, Toronto, Canada

Discussants:

Richard Horner, University of Toronto, Toronto, Canada

Title of Contribution Mechanisms of Upper Airway Control Reveal Therapeutic Targets

Carlos Flroes-Mir, University of Alberta, Edmonton, Canada

Title of Contribution Bridging sweet dreams: The Orthodontist's role in managing pediatric sleep breathing disorders

Lena Xiao, British Columbia Children's Hospital, Vancouver, Canada

Title of Contribution Positional Therapy for the Treatment of Obstructive Sleep Apnea: Empirical Evidence and Caregiver Perspectives

Jasneek Chawla, Queensland Children's Hospital, Brisbane, Australia

Title of Contribution Sleep Disorders in Down syndrome: Alternative approaches and additional

considerations
Sachin R Pendharker, University of Calgary, Calgary, Canada
Title of Contribution How Can Alternative Care Providers Improve Access to Sleep-Disordered Breathing Care?

Symposium Description:

Obstructive sleep apnea (OSA) is a breathing dysfunction during sleep associated with hypoxemia and sleep disruption. OSA may affect individuals across the lifespan and warrants treatment at all life stages. However, the timely provision of therapy is challenging due to access barriers leading to delays in diagnosis. The implementation of effective treatments is further complicated by patient intolerance to continuous positive airway pressure (CPAP) therapy, the most common treatment for OSA in adult populations and the first-line treatment for residual OSA after adenotonsillectomy in children. There is an urgent need for innovative care delivery models across pediatrics into adulthood. This session will review alternative therapies and care pathways to enhance sleep medicine care for the general population as well as high-risk groups including children with Down syndrome.

The underlying pathophysiology of OSA varies amongst individuals and may reveal targets for tailored therapeutic options. The principal determinants of upper airway patency and the rational physiological basis for novel pharmacotherapies will be discussed. Therapies designed to target airway obstruction such as positional therapy and orthodontic treatments including maxillary expansion, mandibular advancement and myofunctional therapy will be reviewed. Caregiver perspectives on childhood OSA therapies will be highlighted. We will discuss novel diagnostics and therapeutics for people with Down syndrome as well as the importance of addressing co-existing non-respiratory sleep difficulties in this population. The findings from qualitative research with families of children with Down syndrome will be reviewed, providing important insights into the negative impact of sleep disruption for caregivers and siblings. Lastly, we will review the potential role of non-physician alternative care providers in the management of sleep-disordered breathing across the spectrum of disease severity. Logistical issues related to scope of practice, medicolegal liability and program structure will be discussed to inform the development of such programs to improve access to care.

Learning Objectives

- Identify the principal determinants of upper airway patency and the rational physiological basis for emerging pharmacotherapies.
- Describe the effectiveness and limitations of alternative therapies for obstructive sleep apnea in the general population and in special populations such as people with Down syndrome.
- Discuss the role of non-physicians in the provision of sleep-disordered breathing care, and the practical considerations for such a model of care.

2025 PEDIATRIC POSTER/ORAL WINNER ANNOUNCEMENTS

March 15, 3:30 – 3:40 PM
Symposium 6 Closing Segment

ORAL SESSION 3: INSOMNIA

March 15, 2:00 PM - 3:30 PM

Oral Session Chairpersons:

Colleen Carney, Professor and Director of the Sleep and Depression Laboratory, Toronto Metropolitan University

Emma-Maria Phillips

Abstracts to be presented:

The abstracts listed in the table below are arranged in the order in which they will be presented during the oral session.

Submission Id	Abstract Title | Titre du résumé	Presenting Author
164	The Insomnia Disorder Health Quality Standard: A Coming of Age for Insomnia Care in Ontario	Colleen Carney
177	Sleep Spindles as Predictor of Response to Cognitive Behavioral Therapy for Insomnia	Mathilde Reyt
108	Cortical Hyperactivation in Chronic Insomnia during An Associative Declarative Memory Task	Emma-Maria Phillips
32	One Night of Mild Sleep Restriction Leads to a Reduction in Visual Scanning and Environmental Processing Behaviours While Driving	Aidan Smith
39	Exploring The Interaction of Biological Sex and Age on Spindle Characteristics in Chronic Insomnia and Healthy Sleep	Nyissa A. Walsh
64	Mirtazapine for Chronic Insomnia in Older Adults: A Randomized Double-Blind Placebo-Controlled Trial – The MIRAGE Study	Patrick Viet-Quoc Nguyen
7	Daridorexant Is Safe and Improves Both Sleep and Daytime Functioning in Elderly Patients With Insomnia	Meryem Maoui
8	Nighttime Safety of Daridorexant: Response to Noise Stimuli, and Effects on Postural Stability, Walking and Memory	Meryem Maoui
11	Efficacy and Safety of Daridorexant in Patients With Chronic Insomnia Disorder and Comorbid Nocturia	Jonathan Charest

ORAL SESSION 4: SLEEP PHYSIOLOGY: FROM MEASUREMENTS TO MEMORY CONSOLIDATION
March 15, 2:00 PM - 3:30 PM
Oral Session Chairperson: Nathalie Pattyn
Abstracts to be presented:
The abstracts listed in the table below are arranged in the order in which they will be presented during the oral session.

Submission Id	Abstract Title | Titre du résumé	Presenting Author
76	Exploring Age-Related Declines in Problem-Solving: The Influence of Spindle-Slow Wave Coupling	Daniel Baena
78	The Role of Slow Wave-Spindle Coupling in Enhancing Motor Memory Consolidation During Sleep	Daniel Baena
104	Sleep Spindles are Resilient to Post-traumatic Grey Matter Damage	Narges Kalantari
84	A Tale of Two Stations: The Role of Isolation in Sleep Disturbances in Antarctica	Nathalie Pattyn
117	Whole-Night EEG-fNIRS: A Novel Approach for Exploring Sleep Physiology in Healthy Adults	Shahla Bakian Dogaheh
145	Development of a High-Density EEG-Based Real-Time Slow Wave Detection and Auditory Stimulation Software	Hanieh Bazregarzadeh
168	NAARE: Nonlinear Aperiodic Active-Rest Estimation	C. William Yao
175	Machine Learning Based Sleep Staging in Healthy and Sleep Disordered Pediatric Patients With EEG Signals	Yuan Gao
26	The Influence of Disordered Sleep on the Wake Intrusion Index: A Structural Equation Modeling Approach	Matthew Gratton

HEALTH BREAK AND EXHIBIT HALL
March 15, 3:30 PM - 3:45 PM

SLEEP SCIENCE REVOLUTION: AI-ENHANCED WEARABLES FOR ACCURATE SLEEP STAGING AND THERAPY

KEYNOTE 4: MANUEL SCHABUS, PROFESSOR, HEAD OF SLEEP UNIT SALZBURG, UNIVERSITY OF SALZBURG, CENTRE FOR COGNITIVE NEUROSCIENCE (AUSTRIA)
March 15, 3:45 PM - 4:30 PM
About the Session
The rise of wearable devices has sparked interest in quantifying sleep, though concerns about their accuracy persist, potentially leading to negative daytime effects. I will review the respective literature and introduce an automated, low-cost, deep learning algorithm for sleep staging, offering reliable classification into four stages (Wake, Light, Deep, REM) using only inter-beat-interval (IBI) heart rate variability (HRV) data. Our multi-resolution convolutional neural network (MCNN) was trained on IBIs from more than 9000 polysomnographies (PSG) and tested for accuracy using two consumer wearables: a PPG-based heart rate sensor (Verity

Sense) and an ECG chest strap (H10) from Polar©.
In a study of 136 self-reported poor sleepers, the model demonstrated high accuracy (ECG: 86.3%, κ = 0.79; H10: 84.4%, κ = 0.76; PPG: 84.2%, κ = 0.75) and strong correlations with PSG on key sleep parameters (e.g., Sleep Onset Latency, Sleep Efficiency, Total Sleep Time, REM sleep). Importantly, the model remained accurate even for participants using heart or psychoactive medications, highlighting its clinical potential. In addition, brand-new data from a multi-sensor study will show how the most well known wearables on the market (Oura Gen 3, Apple Wach 9, Whoop, Fitbit, Garmin) perform as compared to gold-standard PSG.
A recent randomized-controlled trial (RCT) using the sleep² algorithm showed both subjective and objective sleep improvements when combining daily sleep feedback with digital cognitive behavioral therapy for insomnia (dCBT-I). These findings support the use of cost-effective wearables for continuous, reliable sleep stage monitoring, with implications for both research and clinical practice.
Conflict of Interest Disclosure: MS is co-founder of the Nukkuaa GmbH and CSO for the sleep² App which developed the MCNN model for IBI-based sleep classification.

Learning Objectives

- Compare the effectiveness and reliability of widely used wearables.
- Describe how specific wearables could help improve sleep.
- Identify the common challenges associated with "sleep trackers" and digital therapy.

SLEEP, PHYSICAL ACTIVITY, AND BRAIN HEALTH

KEYNOTE 5: TERESA AMBROSE, PROFESSOR, PHYSICAL THERAPIST, UNIVERSITY OF BRITISH COLUMBIA

March 15, 4:30 PM - 5:15 PM

About the Session

Evidence shows that both sleep quality and physical activity is associated with cognitive and brain health. Sleep is also associated with physical activity. Thus, sleep may both be a moderator as well as a mediator of the effect of physical activity on cognitive and brain outcomes. Moreover, physical activity may moderate the negative effect of poor sleep on cognitive health. In this session, we will explore emerging evidence showing the interplay between sleep, physical activity, and brain health.

Learning Objectives

- Identify the role of sleep in brain health.
- Explain how sleep quality moderates the relationship between physical activity and cognitive outcomes.
- Explain how sleep quality mediates the relationship between physical activity and cognitive outcomes.

GALA TRAINEE FUNDRAISER

March 15, 7:30 PM - 10:00 PM

GENERAL SCIENTIFIC PROGRAM | SUNDAY, MARCH 16, 2025

SLEEP IN YOUTH: DEVELOPMENTAL TRAJECTORIES, LINKS TO FAMILY FACTORS AND PREDICTION OF COGNITIVE OUTCOMES

KEYNOTE 6: ANNIE BERNIER, PROFESSOR, UNIVERSITY OF MONTREAL

March 16, 8:30 AM - 9:15 AM

About the Session

In this talk, I will review some of my lab's work from the past 15 years with a cohort of children recruited as toddlers, followed up to adolescence. These youth have worn actigraphs on a nearly annual basis, yielding a very rich set of objective longitudinal sleep data. I will first present a series of papers focused on different aspects of family relationships (e.g., maternal and paternal practices, parent-child attachment) as predictors of children's sleep duration and quality across preschool and school years. Then we will turn to a second group of studies in which we modeled developmental trajectories of several sleep parameters across preschool years as well as during the transition from childhood to adolescence, and investigated predictors and cognitive outcomes of these developmental trajectories. The last part of the talk will address our recent work on associations between sleep and brain anatomy in school-age children, which suggests that these associations vary according to children's subjective feelings of daytime sleepiness. Finally, our upcoming work with adolescents' sleep patterns will be briefly introduced.

Learning Objectives

- Analyze how various family dynamics affect children's sleep.
- Identify key predictors and cognitive outcomes associated with different developmental trajectories of sleep in children.
- Evaluate the relationship between sleep and brain anatomy in school-age children.

INTERPLAY OF CIRCADIAN RHYTHMS AND SLEEP ON BRAIN AND CARDIOMETABOLIC HEALTH

KEYNOTE 7: PHYLLIS ZEE, PROFESSOR, DIRECTOR OF THE CENTER FOR CIRCADIAN AND SLEEP MEDICINE, CHIEF OF SLEEP MEDICINE, NORTHWESTERN UNIVERSITY

March 16, 9:15 AM - 10:00 AM

About the Session

This lecture will provide insights on the close relationship between circadian clocks and sleep, and how disruption of this balance has impact far beyond the disruption of sleep, and wake disorder. There is a rapidly growing body of evidence demonstrating a critical role of circadian - sleep disruption in many of the most challenging chronic diseases, including cardiovascular, cerebrovascular and metabolic diseases and neurodegeneration. Understanding of the molecular, cellular and physiological mechanistic role of circadian disruption in disease risk enables the development of a framework for circadian based therapeutic approaches for prevention and improving clinical outcomes.

Learning Objectives

- Describe how circadian rhythms are regulated and integrated with sleep-wake

mechanisms.
- Examine the role of circadian disruption clocks in the development of neurologic and cardiometabolic disorders.
- Appreciate the potential of harnessing the synchronized interplay of circadian and sleep mechanisms in clinical research and medicine for enhancing health span.

HEALTH BREAK AND EXHIBIT HALL
March 16, 10:00 AM - 10:30 AM

ROUNDTABLE: CTS/CSS PEDIATRIC OBSTRUCTIVE SLEEP APNEA DIAGNOSIS GUIDELINES
March 16, 10:30 AM - 12:00 PM
Chairperson: Joanna MacLean, University of Alberta, Edmonton, Canada
Discussants:
Joanna E MacLean, University of Alberta, Edmonton, Canada
Title of Contribution Introducing the first Canadian OSA diagnosis guidelines
Adetayo Adeleye, University of Calgary, Calgary, Canada
Title of Contribution So, what now? Implementation strategies and anticipated outcomes: a panel discussion
Daryl Adamko, McGill University, Montreal, Canada
Title of Contribution So, what now? Implementation strategies and anticipated outcomes: a panel discussion
Sheila Jacob, Community Practice, Montreal, Canada
Title of Contribution So, what now? Implementation strategies and anticipated outcomes: a panel discussion
Roundtable Description:
Obstructive sleep apnea (OSA) is a common sleep disorder in children. Despite this, access to polysomnography as the recommended standard for diagnosing OSA in children is highly variable and often limited or absent in many places. This has created an environment when most children undergo treatment for OSA without diagnostic testing. The CTS/CSS pediatric OSA diagnosis guideline panel brought together experts across Canada to undertake a systematic review of the evidence for alternatives to polysomnography and to develop the first Canadian guidelines for the diagnosis of OSA in children.
In this symposium, we will present the guidelines and review the evidence behind them. We will consider strategies for implementation of the recommendations in different clinical environments, the resources that may be needed to do this, and how these changes will impact access to diagnostic testing. Finally, we will review the gaps in knowledge highlighted by this systematic review of the evidence and how to address these gaps to improve diagnostic testing for OSA in children.

Learning Objectives

- Identify testing options to diagnose obstructive sleep apnea in children.
- Select the best testing options to investigate symptoms of obstructive sleep apnea in children in their practice.
- Understand the gaps in evidence relevant to testing options for diagnosing obstructive sleep apnea in children.

SYMPOSIUM 8: HARNESSING THE POWER OF SLEEP EEG BIOMARKERS TOWARDS BETTER CHARACTERIZING SLEEP DISORDERS AND RELATED CONDITIONS

March 16, 10:30 AM - 12:00 PM

Chairperson: Diego Mazzotti, University of Kansas Medical Center, Kansas City, USA

Discussants:

Matthew KP Gratton, University of Kansas, Lawrence, USA

Title of Contribution Odds Ratio Product (ORP), a measure of sleep depth: new insights on its application in large populations

Andrew Beaudin, University of Calgary, Calgary, Canada

Title of Contribution Changes in sleep depth with CPAP treatment of OSA

Nataliia Kozhemiako, Brigham and Women's Hospital, Harvard Medical School, Boston, USA

Title of Contribution Sleep EEG correlates of neuropsychiatric conditions in the context of neurodevelopment

Célyne Bastien, University of Laval, Quebec City, Canada

Title of Contribution New EEG biomarkers of sleep quality to identify insomnia phenotypes

Wolfgang Ganglberger, Beth Israel Deaconess Medical Center, Boston, USA

Title of Contribution Inferring cognitive functioning and brain aging from sleep EEG using machine learning

Symposium Description:

Polysomnography generates more data than it currently leverages, despite the existence of methods that extract relevant features with the potential to better predict clinical outcomes. Due to the costs associated with in-laboratory studies, the backlog of patients, and the difficulty to leverage meaningful metrics, home sleep apnea tests are becoming more popular. While focusing only on the information that can be collected by basic assessments may be sufficient in high-risk patients, this approach may fail to capture disease complexity and heterogeneity. Furthermore, the lack of direct assessment of sleep quality may impact treatment choice, efficacy, and adherence.

Advances into novel EEG metrics using spectral power analysis, artificial intelligence, and coherence metrics, provide new tools for the evaluation of sleep disturbances and have been crucial in understanding sleep for the modern age. Such markers can provide detailed information on sleep quality, which is vital for understanding conditions like obstructive sleep apnea, insomnia, and neurodegenerative disorders. Evidence is emerging on the ability of these metrics to identify important subgroups of patients in sleep-wake disorders and guide personalized treatment.

We will bring together a group of early-career and established investigators to discuss recent

data on the applications of novel EEG metrics towards improved clinical characterization of sleep disorders with potential for clinical implementation. Mr. Matt Gratton will give an overview on the odds ratio product and discuss novel metrics to characterize sleep fragmentation. Dr. Andrew Beaudin will discuss data on sleep architecture and responses to positive airway therapy. Dr. Nataliia Kozhemiako will discuss sleep EEG correlates of neuropsychiatric conditions in the context of neurodevelopment. Dr. Célyne Bastien will discuss new EEG biomarkers which can be used to assess sleep quality and identify differing insomnia presentations. Finally, Dr. Wolfgang Ganglberger will discuss sleep metrics that can be used to predict cognitive function and aging.

Learning Objectives

- Evaluate the limitations of traditional scoring criteria and sleep metrics.
- Assess the current state of the research on the use of novel EEG metrics to improve the diagnostic accuracy and characterization of sleep disorders.
- Reflect on the need to implementing the use of novel EEG indices in both research and clinical practice.

SYMPOSIUM 9: THE ROLE OF REM SLEEP IN COGNITIVE ABILITIES AND EMOTIONAL HEALTH: FROM MOTOR LEARNING TO DEPRESSION TREATMENT

March 16, 10:30 AM - 12:00 PM

Chairperson: Stuart Fogel, University of Ottawa, Ottawa, Canada

Discussants:

Nicholas van den Berg, Royal Military Academy, Brussels, Belgium

Title of Contribution Phasic REM Sleep and Problem-Solving Abilities

Alyssa Pozzobon, University of Ottawa, Ottawa, Canada

Title of Contribution REM Sleep and Implicit Motor Learning

Daniel Baena, Sleep Unit, University of Ottawa Institute of Mental Health Research at The Royal, Ottawa, Canada

Title of Contribution Eye Movement Bursts During REM Sleep as Biomarkers for Depression Symptom Improvement in Adolescents with Major Depressive Disorder

John Peever, University of Toronto, Toronto, Canada

Title of Contribution REM Sleep Circuitry and Its Role in Muscle Paralysis and Cognitive Function

Symposium Description:

Recent advancements in **REM sleep research** have highlighted its critical role in supporting both **cognitive abilities** and **emotional regulation**, with an increasing focus on its relevance for mental health and neurological disorders. Originally studied for its involvement in dreaming, REM sleep is now understood to be essential for **memory consolidation**, particularly for tasks requiring complex problem-solving, procedural learning, and emotional processing.

This symposium will provide an **interdisciplinary exploration** of how REM sleep contributes to both cognitive and emotional health. In addition to its established role in memory consolidation, emerging research suggests that REM sleep contributes to problem-solving, motor learning, emotional memory processing, and muscle regulation, with potential therapeutic implications for conditions such as major depressive disorder and REM sleep behavior disorder (RBD).

Furthermore, REM sleep disturbances have been linked to **neurodegenerative diseases** and **mood disorders**, and cutting-edge research on REM circuitry has shed light on how specific brain regions control muscle paralysis during sleep. These findings open new avenues for exploring how REM sleep contributes to emotional regulation and cognitive function, providing potential therapeutic strategies for clinical populations.
This symposium will bring together researchers working on various aspects of REM sleep—from cognitive tasks like motor learning to emotional memory processing and the neurophysiological mechanisms controlling REM sleep muscle paralysis—to provide a comprehensive understanding of its role in both **cognitive** and **emotional health**.

Learning Objectives

- Describe the role of REM sleep in consolidating cognitive abilities (motor learning, problem-solving) and emotional memory processing.
- Analyze electrophysiological markers and REM sleep circuitry, including their role in regulating muscle paralysis and supporting cognitive and emotional improvements.
- Evaluate the therapeutic potential of targeting REM sleep mechanisms in clinical populations, including major depressive disorder and neurodegenerative conditions.

SYMPOSIUM 10: AI AND SLEEP: A SYNERGISTIC APPROACH TO UNDERSTANDING AND MODELING NEURAL DYNAMICS

March 16, 10:30 AM - 12:00 PM

Chairperson: Adrien Peyrache, McGill University, Montréal, Canada

Discussants:

Daniel Levenstein, McGill University, Montréal, Canada

Title of Contribution Sequential predictive learning generates offline replay with variable specificity to experience

Nadia Gosselin, Université de Montréal, Montréal, Canada

Title of Contribution The Nights Bank: a new databank of 30,000 in-laboratory polysomnographic recordings to train AI models at scale

Blake Richards, McGill University, Montréal, Canada

Title of Contribution Choose your tokens wisely - how to extract maximum value from diverse neural recordings

Colin Bredenberg, Université de Montréal, Montréal, Canada

Title of Contribution The oneirogen hypothesis: modeling the hallucinatory effects of classical psychedelics in terms of replay-dependent plasticity mechanisms

Symposium Description:

This symposium will explore the potential of artificial intelligence (AI) in understanding sleep processes, and how sleep research, in turn, provides insights that inform AI model development. Recent advances in both fields suggest a fascinating bidirectional relationship, where the study of neural activity during sleep and replay mechanisms can inspire new AI architectures, and AI can help understand the complex dynamics of sleep- related neural processes.
The first talk will present models of recurrent neural networks that replicate key features of

hippocampal activity during sleep, including sequential predictive learning and memory replay, providing a unifying framework for understanding how the brain processes and consolidates information during sleep. The second talk will highlight the creation of "The Nights Bank," a new large-scale database containing 30,000 in-laboratory polysomnographic recordings, and its potential for training AI models by making massive datasets of sleep recordings available for big data analyses.
The third talk will introduce a novel AI framework designed to decode neural population dynamics from large, diverse datasets of neural recordings. This scalable model can integrate data from multiple sessions and subjects as well as animals to extract valuable insights, offering a new approach for understanding how neuronal activity evolves during sleep. The final talk will introduce the "oneirogen hypothesis," suggesting that psychedelic-induced hallucinatory states may share mechanisms with sleep-related memory replay and plasticity, offering a novel model for studying both sleep and consciousness.
With ample opportunities for interactive discussion, this symposium will bridge the gap between neuroscience and AI, fostering a dialogue on how these fields can synergistically advance our understanding of sleep and neural dynamics.

Learning Objectives

- Explain how recurrent neural networks can model sleep and memory replay processes and identify key similarities between these models and biological hippocampal functions.
- Analyze the potential of large-scale sleep data for training AI models and discuss how these datasets can drive future discoveries in sleep research.
- Describe how deep learning models, trained on large- scale neural datasets, can decode population dynamics and evaluate how this approach may be adapted to analyze sleep-related neural activity, enhancing our understanding of sleep processes through the integration of diverse neural dynamics.

SYMPOSIUM 11: LARGER THAN LIGHT: RETHINKING SLEEP DISRUPTION IN ISOLATED, CONFINED, AND EXTREME (ICE) ENVIRONMENTS

March 16, 10:30 AM - 12:00 PM

Chairperson: Guido Simonelli, Université de Montréal, Montreal, Canada

Discussants:

Daniel Vigo, Catholic University of Argentina and CONICET, Buenos Aires, Argentina

Title of Contribution Sleep-wake Differences in Autonomic Cardiac Activity During Overwintering at Belgrano II Argentine Antarctic Station

Nathalie Pattyn, Royal Military Academy, Brussels, Belgium

Title of Contribution Seasons of Isolation: Examining Time-on-Station During Antarctic Overwintering

Nicholas van den Berg, Royal Military Academy, Brussels, Belgium

Title of Contribution Uncovering Sex-Based Variations in Sleep Across Arctic and Antarctic Seasons

Hugo Jourde, Concordia University, Montreal, Canada

Title of Contribution Measuring Sleep and Cognitive Performance During a Speleology

Expedition in Mexico: Lessons Learned
Olivier Mairesse, Vrije Universiteit Brussel, Brussels, Belgium
Title of Contribution Why the Intercept Matters: Inter-individual Stability of Sleep Parameters in Extreme Conditions

Symposium Description:

Research in isolated, confined, and extreme (ICE) environments exaggerates biological, psychological, and social effects, amplifying disturbances in sleep and circadian rhythms even beyond those seen in temperate conditions. This field of work is not merely an exotic curiosity, but rather an opportunity to inform new insights on sleep-wake and circadian regulation by using ICE environments as natural laboratories for longitudinal studies – something no experimental design could recreate.

This symposium includes each presenters' field work in ICE environments, from Antarctic and Arctic latitudes to cave exploration in Mexico: Whereas the extreme light or dark environment is normally the most-focused upon disruptor to sleep and circadian rhythms, this symposium elucidates several other important factors. In Antarctica, **we explore the impact of overwintering on sleep-wake differences in autonomic cardiac activity**. We then **explore how time-on- station disrupts affects sleep** amidst extreme photoperiodicity, isolation, and social confinement, followed by **comparative studies of Antarctica and the Arctic demonstrating sex differences** in sleep patterns. Beyond the poles, **speleology (cave) studies showcase creative data collection methods to obtain sleep in a challenging environment**, investigating the cognitive effects of disrupted sleep. The final talk will **contextualize how each of these confounding variables, coupled with small sample sizes, pushes us towards analyses which consider interindividual variations** as part of the signal, rather than noise.

This symposium features work from international researchers, all of whom have first-hand experience measuring sleep in ICE environments. Insights from this work will challenge the prevailing notion that light and photoperiodicity are the primary zeitgebers influencing circadian rhythms. Through interactive discussions, attendees will consider how social and cultural influences alter sleep and circadian rhythms. Overall, attendees will leave with a new consideration into how the extremities of ICE research shape the understanding of sleep even in non-ICE "temperate" environments, as applicable in clinical and experimental fields.

Learning Objectives

- Recognize the breadth of biopsychosocial factors that can disrupt sleep based on studies on sleep in isolated, confined, and extreme (ICE) environments.
- Assess and discuss how cultural, geographical and sex differences might influence sleep and its interaction with the environment.
- Contextualize the existing evidence of light and photoperiodicity as the most important zeitgeber (i.e., influencer of the circadian rhythm) with broader perspectives.

ORAL SESSION 5: SLEEP HEALTH AND INSOMNIA: FROM ASSESSMENTS TO INTERVENTIONS
March 16, 10:30 AM - 12:00 PM
Oral Session Chairperson: Karianne Dion, University of Ottawa's Institute for Mental Health Research at the Royal
Abstracts to be presented:
The abstracts listed in the table below are arranged in the order in which they will be presented during the oral session.

Submission Id	Abstract Title | Titre du résumé	Presenting Author
181	Sleep Health Promotion on a National Scale: Insights from the Week for Better Sleep Initiative	Karina Fonseca
69	YKL-40 as an Inflammatory Biomarker Indicative of the Severity of Pathological Insomnia	Rayan Daoudi
87	One's Spouse Poor Sleep Quality Is Associated with One's Diet Quality Via Impaired Diet-Related Action Control	Maegan Dymarski
126	Designing Sleep Health Resources Together: Qualitative Perspectives from Young Shiftworkers	Gabrielle Rigney
200	Where Data Meets Therapy: A Preliminary Qualitative Overview on the Integration of Portable Sleep EEG Monitoring in Digital Cognitive-Behavioural Therapy for Insomnia	Karianne Dion
140	Digital Phenotyping for Sleep, Cognition, and Mental Health in Older Adults: A Feasibility Study and Implications for Cognitive Behavioral Therapy for Insomnia	Rola Harmouche
173	Digital Cognitive Behavioral Therapy Intervention for Reducing Insomnia and Anxiety Symptoms in Older Adults	Mathilde Reyt
142	Preliminary Feasibility, Acceptability, and Effects of iCANSleep: A Mobile Insomnia Treatment App for Cancer Survivors	Katherine-Ann Laura Piedalue
28	Providing Access to Cognitive-Behavioral Therapy for Insomnia in Cancer Care: Preliminary Results of an Implementation Study	Josée Savard
134	Insomnia Symptom Trajectories and Cognitive Markers of Alzheimer's Disease in Dementia-Free Older Adults	Bery Mohammediyan

ORAL SESSION 6: BASIC SCIENCE OF SLEEP AND CIRCADIAN RHYTHMS
March 16, 10:30 AM - 12:00 PM
Oral Session Chairpersons:
Roger Godbout, Professor Emeritus, Université de Montréal
Violette Ayral, Ms, Université de Montréal
Abstracts to be presented:
The abstracts listed in the table below are arranged in the order in which they will be presented during the oral session.

Submission Id	Abstract Title | Titre du résumé	Presenting Author
10	Investigation of the Glymphatic System as a prognostic marker for Dementia with Lewy bodies and Parkinson's Disease	Violette Ayral
16	Median Raphe Glutamatergic Neurons Activity in Relation to Vigilance States and Their Modulation of Hippocampal Rhythms	Justine Fortin-Houde
29	Norepinephrine Regulates REM Sleep and Cataplexy Through Direct Effects on the vlPAG-LPT	Christian Burgess
22	Circuit Control of Cortical Theta Activity During REM Sleep	Anita Taksokhan
25	REM Sleep Behaviour Disorder in Mouse Models of Parkinson's Disease and Multiple System Atrophy.	Brittany Dugan
94	Do Disease Mechanisms in RBD Start in the Peripheral Nervous System?	Anthony Kadamani
132	Mechanisms of Cholinergic Pre-Motor Modulation of Hypoglossal Motor Activity Identified from Combined 'Opto-Dialysis' In-Vivo	Raina Ladha
174	Pre-Clinical Investigation of Noradrenergic-Antimuscarinic Modulation of Sleep and Motor Activities in Rats	Sarah Flaherty
147	The Acute Impact of Daylight Saving Time on Myocardial Infarct Size, Body Temperature and Rest-Activity Cycles: A Rat Model.	Roger Godbout

LUNCH, POSTER SESSION 2 AND EXHIBIT HALL
March 16, 12:00 PM - 2:00 PM

SPECIAL SYMPOSIUM: SLEEP MATTERS - EXPLORING THE LINK BETWEEN SLEEP AND NEURODEGENERATIVE DISEASES OF AGING

March 16, 12:15 PM - 1:45 PM

Symposium Chairperson: Teresa Ambrose, Professor, Physical Therapist, University of British Columbia

Symposium Discussants :

Discussant 1: *'Sleep-related predictors of cognitive decline: identifying targets for sleep interventions';* Thien Thanh Dang Vu

Discussant 2: *'Blood biomarkers to explore mechanistic underpinnings of the sleep and Alzheimer's association'*; Andrée-Ann Baril

Discussant 3: *"Exploring the link between sleep and neurodegenerative diseases: evidence from neuroimaging studies"*; Géraldine Rauchs

Symposium Panelists:

Andrée-Ann Baril, Assistant Research Professor, Université de Montréal / CIUSSS-NIM, CÉAMS, Hôpital du Sacré-Coeur de Montréal

Géraldine Rauchs, Research Director, Inserm - University of Caen Normandy

Mark Boulos, Medical Lead of Sunnybrook Sleep Laboratory, Associate Professor and Senior Scientist, Sunnybrook Health Sciences Centre & University of Toronto

Thien Thanh Dang-Vu, Professor, Concordia University

Stephen Joza, Assistant Professor, University of Alberta

Learning Objectives

- Describe the impact of sleep and sleep disorders in age-related cognitive decline and neurodegenerative diseases.
- Discuss the methodological advancements that have enabled the field to further interrogate the relationship between sleep and neurodegenerative diseases of aging, and explore the new technologies needed to better study sleep in this context.
- Identify current limitations and next steps to facilitate sleep research focused on neurodegenerative diseases of aging and opportunities to move new developments closer to clinical/public impact in Canada

POSTER SESSION 2

March 16, 12:30 PM - 2:00 PM

SYMPOSIUM 12: LOOK BEFORE YOU LEAP: IMAGING FOR UPPER AIRWAY ASSESSMENT TO GUIDE MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA (OSA)

March 16, 2:00 PM - 3:30 PM

Chairperson: Mandeep Singh, University of Toronto, Toronto, Canada

Discussants:

Ameya Milind Pappu, University of Ottawa, Ottawa, Canada

Title of Contribution Imaging Techniques to Evaluate the Upper Airway in OSA

Reshma Amin, University of Toronto, Toronto, Canada

Title of Contribution Imaging Techniques in Pediatrics

Mandeep Singh, University of Toronto, Toronto, Canada

Title of Contribution Use of Point of Care Ultrasound in Obstructive Sleep Apnea

Mohammed Eissa, University of Ottawa, Ottawa, Canada

Title of Contribution Point of Care Ultrasound (PoCUS) and Upper Airway Assessment Technique

Symposium Description:

This symposium will explore the use of various imaging technologies to evaluate the upper airway in patients with Obstructive Sleep Apnea (OSA). With OSA being a complex and heterogeneous condition, identifying the exact sites of upper airway obstruction is essential for diagnosis and management. In this session, experts will discuss cutting-edge imaging techniques, including the role of Point of Care Ultrasound (PoCUS) in airway assessment, and their application in both adult and pediatric populations. The symposium will also offer hands-on learning opportunities, allowing participants to practice PoCUS airway assessment techniques. The goal is to provide a comprehensive overview of how imaging can improve the assessment and triaging of OSA patients, enhancing diagnostic precision and treatment strategies.

Learning Objectives

- Understand the upper airway anatomy and how different imaging technologies can be used to identify sites of upper airway obstruction in diverse Obstructive Sleep Apnea (OSA) patient populations.
- Understand the use of hands-on Point of Care Ultrasound (PoCUS) airway assessment technique in OSA patients.
- Appraise the available evidence on incorporating imaging techniques and PoCUS airway assessment into OSA diagnostic and management pathways.

SYMPOSIUM 13: YOU'VE GOT OPTIONS! NOVEL OPEN-SOURCE TOOLKITS FOR ADVANCED POLYSOMNOGRAPHY ANALYSES

March 16, 2:00 PM - 3:30 PM

Chairperson: Remington Mallett, University of Montreal, Montreal, Canada

Discussants:

Karine Lacourse, Center for Advanced Research in Sleep Medicine, Montreal, Canada

Title of Contribution The Snooz Toolbox: A new user-friendly and collaborative desktop platform for advanced PSG signal analysis

Remington Mallett, University of Montreal, Montreal, Canada

Title of Contribution YASA: Automatic sleep staging and hypnogram agreement metrics in a free

Python package
Shaun M Purcell, Harvard Medical School, Boston, USA
Title of Contribution Luna: An open-source toolset for largescale automated manipulation and analysis of polysomnographic and sleep EEG data
Stuart M Fogel, University of Ottawa, Ottawa, Canada
Title of Contribution "Counting Sheep PSG": A user-friendly EEGLAB-compatible toolbox for visualization, signal processing, sleep staging and event marking of PSG data

Symposium Description

As sleep is increasingly understood to be complex, so are its measurements. How can sleep clinicians and researchers keep up with the increasingly complex and varied ways to quantify sleep? This symposium showcases an array of state- of-the-art and open-source software tools for advanced sleep and polysomnography analysis. Talk 1 will introduce *Snooz*, a user-friendly desktop platform that aims to simplify complex polysomnography analyses for clinicians and researchers. Talk 2 will present *YASA*, a Python package notable for its automatic sleep-staging algorithm and detailed reporting of agreement between human- and machine-generated hypnograms. Talk 3 will present *Luna*, a multi-platform toolset for largescale automated analysis and visualization of sleep data. Talk 4 will present *Counting Sheep PSG*, a MATLAB add-on that integrates with EEGLAB for streamlined polysomnography data viewing, annotating, and analysis. To ensure that any audience member will come away with a useful resource, all tools presented in this symposium were selected for their user-friendly design, their free availability, and their wide coverage of over five different computing platforms. Additionally, the symposium will serve as a compare-and-contrast so that audience members can make an informed decision, based on computing environment and feature-emphasis, about which software tool is right for their current and future needs. By highlighting a variety of free, contemporary software packages with diverse functionalities and technical requirements, this symposium aims to equip researchers and clinicians with practical tools to enhance their daily workflows and elevate the quality of their scientific and clinical practices. Presentations will be delivered by the active maintainers of each toolkit, include real-time demos, and culminate in an interactive panel discussion where attendees can pose technical questions and suggest new features.

Learning Objectives

- Discuss the most recent software packages available to perform complex sleep analyses.
- Analyze polysomnography data using the computing environment of their preference.
- Select the sleep assessment tool that most fits their analysis needs and preferences.

SYMPOSIUM 14: TRANSLATING EVIDENCE INTO CARE FOR INSOMNIA DISORDER: FROM PROVINCIAL STANDARDS OF CARE TO A NATIONAL STEPPED CARE MODEL

March 16, 2:00 PM - 3:30 PM
Chairperson: Rebecca Robillard, University of Ottawa, Ottawa, Canada
Discussants:
Judith Davidson, Queens University, Kingston, Canada
Title of Contribution Optimizing access to CBT-I and medication management through a national stepped care model for interdisciplinary insomnia care

Colleen Carney, Toronto Metropolitan University, Toronto, Canada
Title of Contribution Developing provincial standards of care for insomnia
Rebecca Robillard, University of Ottawa, Ottawa, Canada
Title of Contribution Leveraging lived expertise to co-create scalable self-help toolkits for insomnia

Symposium Description:

Limited awareness about insomnia treatments and poor access to the recommended first line treatment have hindered our ability to address the most prevalent sleep disorder affecting Canadians, but promising new initiatives are underway. This symposium will present ongoing work to promote and facilitate the implementation of evidence-based healthcare for insomnia disorder. The first presentation will showcase the development of quality standards for insomnia disorder in Ontario, with an overview of qualitative findings from public consultations. Led by Ontario Health, an agency mandated to connect and coordinate Ontario's health care system to ensure the delivery of best possible care, this initiative mobilized a group of sleep clinicians, scientists, and lived experts to reach consensus on information to support: a) patients in identifying what to ask for in their care, b) healthcare providers in delineating what care they should be offering, c) healthcare organizations in measuring, assessing and improving insomnia care performance. The second presentation will summarize a new stepped care model to optimize the management of insomnia at the national level through increased access to cognitive-behavioral therapy for insomnia and reducing chronic use of sedative-hypnotic medications. The foundation of this model lays on self-guided approaches through public health paradigm, interventions delivered by primary care providers, pharmacists, and behavioral sleep experts. The third talk will summarize key findings from focus groups aimed at delineating the strengths and challenges linked to scalable self-help tools for insomnia management.

Learning Objectives

- Apply expert recommendations to support patients and clinicians in navigating insomnia management.
- Identify strategies for optimizing resources for evidence-based insomnia treatments within the Canadian healthcare system.
- Describe the key elements that people with lived expertise wish to see in self-help resources for insomnia management.

SYMPOSIUM 15: ADVANCES IN CLOSED-LOOP STIMULATION OF SLEEP SPINDLES
March 16, 2:00 PM - 3:30 PM
Chairpersons:
Emily Coffey, Concordia University, Montreal, Canada
Hugo Jourde, Concordia University, Montreal, Canada
Discussants:
Hugo R. Jourde, Concordia University, Montreal, Canada
Title of Contribution Stimulating sleep spindles with sound: feasibility and effects
Mary Brooks, Concordia University, Montreal, Canada
Title of Contribution Behavioral effects of stimulating sleep spindles in younger and older adults
Prakriti Gupta, McGill University, Montreal, Canada

Title of Contribution Enhancing Motor Memory Consolidation Through Closed-Loop Targeted Memory Reactivation During Sleep Spindles
Vaishali Mutreja, McGill University, Montreal, Canada
Title of Contribution Auditory cues during sleep spindles improve visuospatial declarative memory consolidation

Symposium Description:

Recent advances in brain stimulation techniques have demonstrated that endogenous brain activity can be manipulated non-invasively, offering exciting possibilities for cognitive enhancement and potential therapeutic interventions. Since Ngo et al.'s seminal demonstration that closed-loop auditory stimulation (CLAS) to slow oscillation up-states in sleep increases declarative memory consolidation, the majority of work to date has focused on replicating and extending their results to different populations and behavioural tasks. However, other neural oscillations, notably sleep spindles, are also critical for memory consolidation and neuroplasticity. This symposium will bring together researchers who are leading efforts to explore the potential mechanisms and effects of directly stimulating sleep spindles. Our speakers will first describe recent efforts to develop sleep spindle stimulation as a means of manipulating brain activity, using auditory and transcranial alternating current stimulation, and demonstrate their effectiveness in evoking changes in brain activity. We will then hear from groups who are using spindle stimulation to investigate its effects on declarative, procedural and complex learning, using both CLAS, and a combination of CLAS and targeted memory reactivation. These early studies offer exciting prospects for improving degraded neurocognitive processes, such as those which occur in aging. Together, these talks will showcase different basic and applied research applications of this novel form of closed-loop brain stimulation, fostering collaboration between researchers in the neuroscience of sleep and their clinical counterparts.

Learning Objectives

- Describe the current technical feasibility of closed-loop brain stimulation of sleep spindles.
- Identify the neurophysiological reactions evoked by brain stimulation of sleep spindles.
- State preliminary results concerning cognitive enhancement following sleep spindle stimulation.

SYMPOSIUM 16: ADVANCES IN CANADIAN PERINATAL AND INFANT SLEEP RESEARCH FOR FAMILIES

March 16, 2:00 PM - 3:30 PM
Chairperson: Elizabeth Keys, University of British Columbia Okanagan, Kelowna, Canada
Discussants:
Mahtab Matin, University of British Columbia Okanagan, Kelowna, Canada
Title of Contribution Sleep in a New Era: Infant Sleep Patterns and Influences in Canadian Families
Marie-Hélène Pennestri, McGill University, Montréal, Canada
Title of Contribution Understanding Intraindividual Sleep Variability: Insights from Parent-Reported Diaries and Actigraphy

Emily Wildeboer, Dalhousie University, Halifax, Canada
Title of Contribution A Qualitative Study Exploring Healthcare Provider Needs and Preferences for an Early Childhood Sleep Education Program
Anna MacKinnon, Université de Montréal, Montréal, Canada
Title of Contribution Sleeping for Two: A randomized controlled trial of cognitive behavioural therapy for insomnia (CBT-I) in pregnancy
Elizabeth Keys, University of British Columbia Okanagan, Kelowna, Canada
Title of Contribution Co-Creating SLUMBER: Engaging parents and care providers to develop an intervention program that supports healthysleep and early childhood relationships

Symposium Description:
Sleep has been identified as one of the top 10 Canadian research priorities of expectant parents and families with young children. This symposium will provide audience members with a snapshot of recent perinatal and infant sleep research from across Canada, drawing from longitudinal cohort, observational, qualitative, interventional, and integrated knowledge translation studies. First, Mahtab Matin will present epidemiological data on infant and parental sleep health and habits. She will share findings from a secondary analysis of the national Pregnancy during the Pandemic cohort study, which collected parent-reported parental and/or infant sleep data at pregnancy, 3 months postpartum, and 12 months postpartum. Next, Dr. Marie-Hélène Pennestri will share the latest findings of her research on intraindividual sleep variability in families of infants. She will discuss sleep variability of parents and infants, as measured using parent-reported sleep diaries and actigraphy. For the third presentation, Emily Wildeboer will share findings from a qualitative study of Canadian healthcare providers about their past training experiences and current practices related to sleep in young children. She will also share information about healthcare providers' needs and preferences for an online professional development program to build capacity in supporting sleep in families during early childhood. In the fourth presentation, Dr. Anna MacKinnon will share results from the Sleeping for Two randomized controlled trial, which evaluated the impacts of providing cognitive behavioral therapy for insomnia to pregnant people. To close, Dr. Elizabeth Keys will discuss the use of integrated knowledge translation in intervention development and evaluation and share findings from foundational co-design workshops with parents and care providers to inform the development of the SLeep solUtions to proMote BetterEarly childhood Relationships (SLUMBER) Program.

Learning Objectives

- Discuss parent-reported infant sleep characteristics, patterns and habits.
-
- Identify gaps and opportunities in current Canadian research and healthcare provider training related to early childhood sleep.
- Reflect upon how to meaningfully support sleep health infamilies of expectant parents and young children.

ORAL SESSION 7: SLEEP APNEA AND CENTRAL DISORDERS OF HYPERSOMNOLENCE
March 16, 2:00 PM - 3:30 PM
Oral Session Chairpersons
Gabrielle Rigney
Sachin Pendharkar, University of Calgary
Abstracts to be presented:
The abstracts listed in the table below are arranged in the order in which they will be presented during the oral session.

Submission Id	Abstract Title | Titre du résumé	Presenting Author
122	Impact of Nocturnal Hypoxia on Ambulatory Blood Pressure in Hypertensive Patients with Sleep Apnea	Manraj Virk
127	Upper Airway Physiology in Obstructive Sleep Apnea Among Non-Obese Multiple Sclerosis Patients	Emma Thomas
121	Examining the Association Between Obstructive Sleep Apnea and Total Hippocampal Volumes in a Cognitively Impaired Cohort	Mark I. Boulos
12	Repeated Dosing of 50 Mg Daridorexant in Patients With Severe Obstructive Sleep Apnea: Effect on Sleep-Disordered Breathing and Sleep	Marc Véronneau
13	Effect of Daridorexant on Patients With Comorbid Insomnia Disorder and Untreated Mild Obstructive Sleep Apnea: A Post-Hoc Analysis of a Phase 3 Study	Marc Véronneau
61	Individualized Dosing Strategies for Oxybate: Insights From the Real-World TENOR Study	Zoltan Torontali
195	Primary Care Provider Perspectives on a Clinical Pathway for Obstructive Sleep Apnea	Sachin Pendharkar
116	Barriers and Facilitators in Navigating Obstructive Sleep Apnea Care: A Qualitative Study of Primary Care Providers	Wanjae Cho
133	Treatment Strategies for Postoperative Management of Obstructive Sleep Apnea: A Systematic Review and Meta-Analysis Informing SASM-SAMBA-SOCCA Tri-Society Guidelines	Ameya Pappu
125	Utilising a Participatory Co-Design Approach to Develop Sleep Resources for Young Shiftworkers	Gabrielle Rigney

HEALTH BREAK
March 16, 3:30 PM - 3:45 PM

SLEEP AND HEALTH: UPSTREAM DETERMINANTS AND DOWNSTREAM CONSEQUENCES

KEYNOTE SPEAKER: MICHAEL GRANDNER, ASSOCIATE PROFESSOR, UNIVERSITY OF ARIZONA

March 16, 3:45 PM - 4:30 PM

About the Session

Sleep is foundational to health. This presentation will overview the context of sleep health as it relates to other domains of health. It will discuss the social-ecological model of sleep health, reviewing the upstream social, behavioral, and environmental determinants of sleep health. It will also review the data on downstream cardiometabolic, neurocognitive, and functional outcomes of poor sleep health. Finally it will address the concept of sleep health interventions and promotion strategies.

Learning Objectives

- Understand the role of sleep health in the context of other health behaviors.
- Understand environmental, social, and behavioral determinants of sleep health as well as understand cardiometabolic, neurocognitive, and functional outcomes of poor sleep health.
- Consider various strategies for intervening on sleep to promote sleep health.

CLOSING SESSION

March 16, 4:30 PM - 5:00 PM

2025 Canadian Sleep Society Conference

PRIMARY CARE PROGRAM
March 14, 2025

MONTRÉAL

12th CSS Congress

It's time to talk about sleep.

PRIMARY CARE COURSE

Opening and Welcome at 7:45 am

The Primary Care program is designed for family physicians, pharmacists, dentists, nurse practitioners and other front line health care professionals. In the morning, learn from sleep experts from cross-disciplinary fields. In the afternoon, participants will learn about CBT-I and how we can all increase Canadians' access to this first-line treatment for insomnia.

COURSE LEARNING OBJECTIVES:

1. Employ the latest in diagnostics for major sleep disorders and know when to refer for specialized assessment
2. Apply the most up-to-date treatments, whether behavioural or pharmacological, for major sleep disorders
3. Identify opportunities to access CBT-I treatment for insomnia appropriately

8:00-8:30 AM

Sleep-Disordered Breathing - Update on Cardiometabolic Health

PRESENTED BY: Sushmita Pamidi

8:30-9:00 AM

Obstructive Sleep Apnea and Women

PRESENTED BY: Marta Kaminska

9:00-9:30 AM

Updates in Surgical Management of OSA

PRESENTED BY: Tina Meisami and Badr Ibrahim

COMING SOON

9:40-10:25 AM

Pharmacotherapy of Hypersomnias: An Overview

PRESENTED BY: Milan Nigam

10:25- 11:10 AM

Pharmacotherapy of Insomnia

PRESENTED BY: Michael Mak

11:10-11:55 AM

Parasomnia + RLS

PRESENTED BY: Jonathan Yeung-Laiwah

11:55-12:30 PM

Clinically Relevant Interactions Between Sleep, Mood and Anxiety Disorders

PRESENTED BY: Atul Khullar

12:30-1:00 PM

Lunch

1:00-3:30 PM

Insomnia Care on Every Corner: A Stepped Care Approach

PRESENTED BY:
Judith Davidson
David Gardner
Eileen Sloan
Erin Desmarais
Katherine Fretz
Stephanie Lynch

Note: Program is still in development and is subject to change

sleepconference.ca

March 14, 2025

PRIMARY CARE/DENTAL CME PROGRAM DETAIL – FRIDAY PROGRAM

WELCOME AND INTRODUCTIONS
March 14, 7:45 AM - 8:00 AM
Speakers:
Michael Mak, Sleep Medicine Specialist, Staff Psychiatrist, Assistant Professor, University of Toronto
Tina Meisami, Maxillofacial Surgeon, Assistant Professor, University of Toronto, University Health Network

SLEEP-DISORDERED BREATHING - UPDATE ON CARDIOMETABOLIC HEALTH
March 14, 8:00 AM - 8:30 AM
About the Session
This session will provide an overview of sleep-disordered breathing and its implications for cardiometabolic health in adults. Further, a review of interventional studies to date will be discussed.
Speaker: Sushmita Pamidi, Associate Professor of Medicine, McGill University
Learning Objectives

- Understand the relationship between OSA and cardiometabolic disease in adults.
- Provide an overview of the clinical trials investigating whether OSA treatment improves cardiometabolic outcomes.
- Briefly review how personalized medicine in OSA may relate to cardiometabolic outcomes.

OBSTRUCTIVE SLEEP APNEA IN WOMEN
March 14, 8:30 AM - 9:00 AM
About the Session
This session will describe particularities of obstructive sleep apnea specifically related to women. Epidemiology will be discussed, and how it differs in women vs. men across the lifespan. Pathophysiology of OSA in general and particularly in relation to women, for example in menopause, will be described. Clinical presentation and manifestations will be reviewed. Specific elements of diagnosis and treatment will be reviewed.
Speaker: Marta Kaminska, Associate Professor, McGill University Health Centre
Learning Objectives

- Explain epidemiologic and pathophysiologic specificities of obstructive sleep apnea in women.
- Recognize clinical features of obstructive sleep apnea in women.
- Formulate a management plan for the woman with sleep apnea.

UPDATES IN SURGICAL MANAGEMENT OF OSA
March 14, 9:00 AM - 9:30 AM
About the Session
This lecture will briefly review the updates in skeletal and soft tissue surgical treatment options for OSA. The speakers will discuss evidence-based approach to patient selection and treatment success.
Speakers
Badr Ibrahim
Tina Meisami, Maxillofacial Surgeon, Assistant Professor, University of Toronto, University Health Network
Learning Objectives
- Evaluate Surgical Treatment Options for OSA.
- Review surgical treatment algorithm, workflow, and recovery.
- Apply Evidence-Based Approaches to Patient Selection for OSA Surgery.

BREAK
March 14, 9:30 AM - 9:40 AM

PHARMACOTHERAPY OF HYPERSOMNIAS: AN OVERVIEW
March 14, 9:40 AM - 10:25 AM
About the Session
This presentation will provide primary care physicians and pharmacists with an up-to-date review of pharmacotherapy for hypersomnias, including narcolepsy, idiopathic hypersomnia, and residual somnolence in patients with obstructive sleep apnea treated with CPAP. Focusing on the practical management of these conditions, the talk will cover the underlying pathophysiology, currently approved medications, and off-label treatment options. We'll review evidence-based recommendations, dosing strategies, and the nuances of selecting the most appropriate treatment based on patient-specific factors, including age, comorbidities, and potential adverse effects.
Speaker: Milan Nigam, Sleep Neurologist, Center for Advanced Research in Sleep Medicine - Hôpital du Sacré-Coeur de Montréal
Learning Objectives
- Identify the key features and treatment objectives in narcolepsy, idiopathic hypersomnia, and residual somnolence in CPAP-treated apnea patients.
- Evaluate current pharmacologic options for managing hypersomnias, including mechanisms of action, dosing strategies, and potential adverse effects.
- Apply evidence-based guidelines and practical strategies to tailor pharmacotherapy for hypersomnia based on individual patient factors and comorbidities.

PHARMACOTHERAPY OF INSOMNIA
March 14, 10:25 AM - 11:10 AM
About the Session
This session consists of a comprehensive review of insomnia epidemiology, costs to society, comorbidities, and pharmacotherapy.
Speaker: Michael Mak, Sleep Medicine Specialist, Staff Psychiatrist, Assistant Professor, University of Toronto
Learning Objectives

- Analyze the Epidemiology of Insomnia.
- Evaluate the Economic and Societal Costs of Insomnia.
- Identify Pharmacotherapeutic Approaches for Insomnia.

CLINICALLY RELEVANT INTERACTIONS BETWEEN SLEEP, MOOD AND ANXIETY DISORDERS
March 14, 11:55 AM - 12:30 PM
Speaker: Atul Khullar, Psychiatrist, Sleep Specialist, Medsleep Edmonton/University of Alberta
Learning Objectives

- Analyze Major Sleep Disorders in Patients with Mood and Anxiety Disorders: Participants will analyze the presentation of major sleep disorders in patients with mood and anxiety disorders, identifying key symptoms and diagnostic features.
- Prioritize Treatment and Address Comorbid Mental Health Concerns: Participants will prioritize treatment options for patients with mood and anxiety disorders, considering the management of sleep disorders and other comorbid mental health concerns.
- Evaluate the Impact of Psychotropic Medications on Sleep Disorders: Participants will evaluate how common psychotropic medications affect sleep disorders in patients with mood and anxiety disorders, assessing both therapeutic benefits and potential adverse effects.

LUNCH
March 14, 12:30 PM - 1:00 PM

INSOMNIA CARE ON EVERY CORNER: A STEPPED CARE APPROACH

March 14, 1:00 PM - 3:30 PM

About the Session

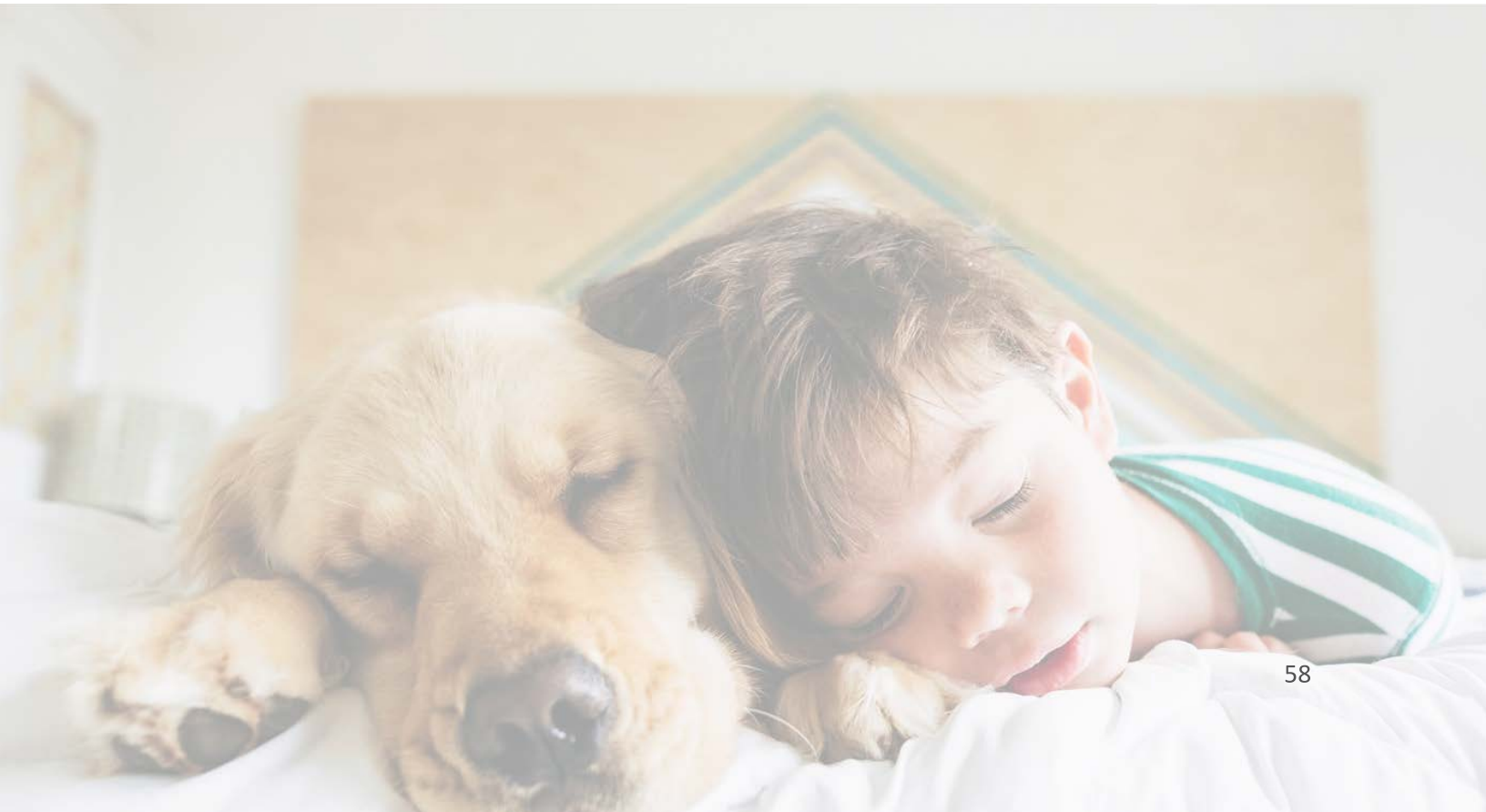
No matter what your healthcare discipline is, you can help the person with insomnia using evidence-informed strategies. Our interprofessional team will show you how to find your place(s) within the stepped care model. In this interactive workshop, you will receive information on CBT-I: what it is, how it works, and how to point the person in the direction of this first-line treatment for Insomnia Disorder.

Speakers:

David Gardner, Professor and Director of Community Psychiatry Research, Department of Psychiatry, Dalhousie University
Eileen Sloan, Department of Psychiatry, University of Toronto
Erin Desmarais, Social Worker, Queens University (Queens Family Health Team)
Judith Davidson, Clinical and Health Psychologist, Adjunct Professor, Queen's University
Katherine Fretz, Registered Psychologist, CHIR
Stephanie Lynch, Pharmacist, Queen's University Department of Family Medicine

Learning Objectives

- Identify where you are in the stepped care model and what you can provide to the person with Insomnia Disorder.
- Name and explain the two most powerful components of CBT-I.
- State what you would do if a patient wished to discontinue long-term use of sedative-hypnotic medication.



2025 Canadian Sleep Society Conference

DENTAL CME PROGRAM
MARCH 14-16, 2025

MONTRÉAL
12th CSS Congress
It's time to talk about sleep.

DENTAL SLEEP PROGRAM

Opening and Welcome at 7:45 am

The Dental Sleep Program runs for 3 days and integrates with General Scientific Program on Saturday and Sunday. That program includes the details for keynotes, symposium and oral sessions.

FRIDAY, MARCH 14, 2025

8:00-8:30 AM
Sleep-Disordered Breathing - Update on Cardiometabolic Health
PRESENTED BY: Sushmita Pamidi

8:30-9:00 AM
Obstructive Sleep Apnea and Women
PRESENTED BY: Marta Kaminska

9:00-9:30 AM
Updates in Surgical Management of OSA
PRESENTED BY: Tina Meisami and Badr Ibrahim

COMING SOON

9:40-10:25 AM
Pharmacotherapy of Hypersomnia
PRESENTED BY: Milan Nigam

10:25- 11:10 AM
Pharmacotherapy of Insomnia
PRESENTED BY: Michael Mak

11:10-11:55 AM
Parasomnia + RLS
PRESENTED BY: Jonathan Yeung-Laiwah

11:55-12:30 PM
Clinically Relevant Interactions Between Sleep, Mood and Anxiety Disorders
PRESENTED BY: Atul Khullar

12:30-1:00 PM
Lunch

1:00-3:30 PM
Insomnia Care on Every Corner: A Stepped Care Approach
PRESENTED BY:
Judith Davidson
David Gardner
Eileen Sloan
Erin Desmarais
Katherine Fretz
Stephanie Lynch






Sponsored by BRAEBON

SATURDAY, MARCH 15, 2025

10:45- 11:45 AM
Updates in Mandibular Advancement Therapy
PRESENTED BY: Jean-François Massé

COMING SOON

11:45-12:45 PM
Management of Mandibular Advancement Therapy Complications
PRESENTED BY: Patrick Arcache

COMING SOON

12:45-2:00 PM
Dental Roundtable with Lunch

2:00-3:00 PM
Orthodontic and Skeletal Surgical Management of OSA: Treatment Protocols and Sequencing
PRESENTED BY:
Julia Cohen-Levy and
Tina Meisami


Canadian Sleep Society | Société Canadienne du Sommeil

DENTAL CME PROGRAM – DETAILED

FOR FRIDAY, MARCH 14, 2025, PROGRAM DETAILS, SEE PRIMARY CARE/DENTAL PROGRAM

SATURDAY, MARCH 15, 2025

Sponsored by BRAEBON

UPDATES IN MANDIBULAR ADVANCEMENT THERAPY
March 15, 10:45 AM - 11:45 AM
Speaker: Jean-François Masse, DMD, Université Laval

MANAGEMENT OF MANDIBULAR ADVANCEMENT THERAPY COMPLICATIONS
March 15, 11:45 AM - 12:45 PM
Speaker: Patrick Arcache

ROUNDTABLE DISCUSSION: FUTURE OF DENTAL SLEEP MEDICINE IN CANADA
Lunch will be available during this session
March 15, 12:45 PM - 2:00 PM
About the Session
Join us for a thought-provoking session aimed at deepening the understanding of dental sleep medicine and its critical role in the evolving healthcare landscape of Canada. This session welcomes all CSS members and attendees: Physicians, Dentists and Technologists to explore the growing significance of dental sleep medicine. We will delve into the position of dental sleep medicine in Canada, including its future trajectory and ongoing advancements.
Speakers:
Cibele DAL FABBRO, Adjoint Professor, Université de Montréal
Gilles Lavigne, Professor, McGill University
Jean-François Masse, DMD, Université Laval
Julia Cohen-Levy, Assistant Professor, Co-Director Orthodontic Department, Assistant Dean, McGill University, Faculty of Dental Medicine and Oral Health Sciences
Patrick Arcache
Tina Meisami, Maxillofacial Surgeon, Assistant Professor, University of Toronto, University Health Network
Learning Objectives

- Explain the role of Dentistry in Sleep Medicine in Canada.
- Evaluate pathways for professional and interdisciplinary development with dental sleep medicine.
- Understand the need for development of Canadian Dental Sleep Boards in shaping Practice Guidelines in the field of dental sleep medicine.

ORTHODONTIC AND SKELETAL SURGICAL MANAGEMENT OF OSA: TREATMENT PROTOCOLS AND SEQUENCING

March 15, 2:00 PM - 3:00 PM

About the Session

Maxillo-mandibular advancement (MMA) and surgical transverse expansion of the maxilla (SARPE, DOME) are powerful interventions for adult patients with obstructive sleep apnea, offering significant airway improvement when conservative treatments failed.

However, these procedures extend beyond airway optimization, profoundly impacting facial balance, occlusion**,** and long-term skeletal stability. Careful case selection is essential, as not all patients are ideal candidates, and the interplay between airway gain, esthetics, and function must be carefully managed.

In this joint lecture, an orthodontist and a maxillofacial surgeon will share their clinical experience, discussing patient selection criteria, the specific surgical and orthodontic challenges of these cases compared to conventional orthognathic procedures, and the limitations that may influence stability and treatment outcomes.

Speakers:

Julia Cohen-Levy, Assistant Professor, Co-Director Orthodontic Department, Assistant Dean, McGill University, Faculty of Dental Medicine and Oral Health Sciences

Tina Meisami, Maxillofacial Surgeon, Assistant Professor, University of Toronto, University Health Network

2025 Canadian Sleep Society Conference

TECHNOLOGIST PROGRAM
ENGLISH
March 14-16, 2025

Sponsored by

MONTRÉAL

12e Congrès de la SCS

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ENGLISH TECHNOLOGIST PROGRAM

The Technologist Program runs for 3 days and integrates with General Scientific Program on Saturday and Sunday. That program includes the details for keynotes, symposium and oral sessions.

PROGRAM SPONSOR

nox MEDICAL

FRIDAY, MARCH 14, 2025

8:00-8:15 AM
Welcome

8:15-9:15 AM
Pickwickian Syndrome to Modern Sleep Therapy: The Science of Slumber
PRESENTED BY: Raj Atkar

9:15-10:15 AM
Beyond Apnea: Recognizing insomnia in your patient
PRESENTED BY: Aaron Arkin

10:30-12:30 AM
Scoring Sleep Studies: Interesting cases to discuss rules, common sense and experience
PRESENTED BY:
Helen Driver, Kingston Health Sciences Centre and Queen's University
Danielle Myhill, Kingston Health Sciences Centre
Colin Massicotte, Sickkids



12:30-1:00 PM
Lunch

1:00 - 2:00 PM
Beyond Sleep Stages: An Introduction to Odds Ratio Product for Technologists
PRESENTED BY: Heather Tomson

2:00 - 3:00 PM
Latest recommendations for using wearable technology in sleep and circadian research
PRESENTED BY: Caroline Arbour

SATURDAY, MARCH 15, 2025

10:45-11:45 AM
Sleep in Adolescents
PRESENTED BY: TBD

COMING SOON

11:45-12:45 PM
Treatment of OSA
PRESENTED BY: Marcus Povitz

12:45-1:45 PM
Lunch

1:45- 3:15 PM
Partner Presentations Confirmed: Nox Medical, Axsome Therapeutics, Zoll Itamar, ResMed and Braebon Medical Corporation

3:15-3:30 PM
Closing Remarks

Note: Program is still in development and is subject to change

ENGLISH TECHNOLOGIST PROGRAM DETAIL | MARCH 14-16, 2025

See General Scientific Program for session information for keynote sessions and the Sunday schedule of sessions.

FRIDAY, MARCH 14, 2025

WELCOME (TECHNOLOGIST PROGRAM EN)

March 14, 8:00 AM - 8:15 AM

About the Session

Welcome to the 2025 Technologist Program (EN)! Join us to learn more about sleep science and sleep medicine.

Speakers:

Colin Massicotte, Team Lead, Sleep Technologists, Sickkids

Santixay (Sonny) Homsombath, Polysomnographic Technologist, Alberta Health Services

PICKWICKIAN SYNDROME TO MODERN SLEEP THERAPY: THE SCIENCE OF SLUMBER

March 14, 8:15 AM - 9:15 AM

About the Session

Trace the progression of sleep medicine from early observations of Pickwickian syndrome to the development of CPAP therapy, highlighting key contributions from pioneers like Colin Sullivan, John Remmers, Thomas Willis (17th Century) and Willam Wadd (19th Century)
Explore the physiological mechanisms underlying upper airway obstruction and its impact on conditions like obstructive sleep apnea.
Recognize how advances in understanding sleep physiology and the development of therapeutic interventions have transformed the diagnosis and treatment of sleep disorders.

Speaker: Raj Atkar, Senior Lead Polysomnographic Technologist, Alberta Health Services

Learning Objectives

- Understand the Historical Milestones in Sleep Medicine.
- Examine the Role of Upper Airway Physiology in Sleep-Disordered Breathing.
- Appreciate the Integration of Scientific Research into Clinical Practice.

BEYOND APNEA: RECOGNIZING INSOMNIA IN YOUR PATIENT

March 14, 9:15 AM - 10:15 AM

About the Session

This session will focus on the identification and management of insomnia symptoms in clients seeking care at a Sleep Disorder Clinic. Participants will learn how to recognize key signs of insomnia, understand evidence-based treatment approaches for these clients, and explore options for those using Positive Airway Pressure (PAP) therapy who continue to experience poor sleep quality. By the end of the session, attendees will be equipped with practical tools to better address insomnia symptoms and optimize care for clients struggling with unresolved sleep issues.

Speaker: Aaron Arkin, Director, Insomnia Services, RPSGT

Learning Objectives

- Identify clients who are experiencing insomnia symptoms that present at a Sleep

Disorder Clinic.
- Explain the recommended treatment for those who have these symptoms.
- Explain the options for clients who beneficially use PAP therapy but their poor quality sleep is unresolved.

BREAK
March 14, 10:15 AM - 10:30 AM

SCORING SLEEP STUDIES: INTERESTING CASES TO DISCUSS RULES, COMMON SENSE AND EXPERIENCE
March 14, 10:30 AM - 12:30 PM
About the Session
Through a selection of interesting clinical cases, rather than didactic scoring per the manual, we will review PSGs including identifying sleep stage, respiratory, movement and cardiac events and artifact. Adult and pediatric studies for narcolepsy, epilepsy, parasomnias, sleep-disordered breathing and titrations will be outlined. Rules guide, but common sense and experience prevail!
Speakers
Colin Massicotte, Team Lead, Sleep Technologists, Sickkids
Danielle Myhill, Kingston Health Sciences Centre
Helen Driver, Somnologist, Manager, Kingston Health Sciences Centre and Queen's University
Learning Objectives
- Review recommended AASM scoring rules through case studies.
- Apply common sense and experience to evaluate PSGs, especially for artifact.
- Discuss scenarios to integrate rules and relevance.

LUNCH
March 14, 12:30 PM - 1:00 PM

BEYOND SLEEP STAGES: AN INTRODUCTION TO ODDS RATIO PRODUCT FOR TECHNOLOGISTS
March 14, 1:00 PM - 2:00 PM
About the Session
This session will introduce the concept of Odds Ratio Product (ORP) and its application in quantifying sleep depth using EEG data. Participants will learn how ORP enhances traditional sleep scoring methods by offering deeper insights into the sleep/wake cycle. We will also explore how ORP can improve technologists' understanding of sleep disorders and contribute to better patient outcomes by providing more accurate assessments of sleep depth.
Speaker: Heather Tomson, RPSGT Sleep Specialist, Cerebra; Nova Scotia Health Authority
Learning Objectives
- Explain how Odds Ratio Product (ORP) is calculated and how it quantifies sleep depth using EEG data.
- Describe how ORP augments traditional scoring methods by providing additional insights into sleep/wake depth.
- Discuss the potential applications of ORP in advancing technologists' understanding of sleep

disorders and improving patient outcomes.

LATEST RECOMMENDATIONS FOR USING WEARABLE TECHNOLOGY IN SLEEP AND CIRCADIAN RESEARCH
March 14, 2:00 PM - 3:00 PM
Speaker: Caroline Arbour, Nurse, Associate Professor, Faculty of Nursing, Université de Montréal
Learning Objectives

- Identify the types of data provided by wearable sleep-tracking devices.
- Evaluate the accuracy of the data collected by wearable sleep-tracking devices.
- Discuss the key factors to consider when incorporating wearable sleep-tracking devices into research.

SATURDAY, MARCH 15, 2025

BILEVEL TITRATIONS IN THE SLEEP LAB: S, ST AND ASV MODES
March 15, 10:45 AM - 11:45 AM
Speaker:

TREATMENT OF OSA
March 15, 11:45 AM - 12:45 PM
About the Session

- How can OSA be treated?
- When would one use dental devices or surgery for OSA instead of CPAP.
- What is the difference between APAP, CPAP, bPAP, VAPS, ASV why use one over another
- What information do you look at on download, are these accurate
- What do we do when the AHI doesn't go down?

Speaker: Marcus Povitz, Clinical Associate Professor; Program Director AFC Sleep Disorders Medicine, Department of Medicine, Cumming School of Medicine, University of Calgary
Learning Objectives

- Explain the latest knowledge about OSA treatment for 2025.
- Explain the modes of PAP and how they differ.
- Understand PAP downloads and strategies to address PAP failure.

PARTNER PRESENTATIONS
March 15, 1:45 PM - 3:15 PM
About the Session
Join us for 15-minute presentations from our conference partners.

CLOSING (TECHNOLOGIST PROGRAM EN/FR)
March 15, 3:15 PM - 3:30 PM

2025 Canadian Sleep Society Conference

TECHNOLOGIST PROGRAM
FRENCH
March 14-16, 2025

Sponsored by

MONTRÉAL

12e Congrès de la SCS

C'est l'heure de parler de sommeil.

FRENCH TECHNOLOGIST PROGRAM

Sessions are delivered in French

The Technologist Program runs for 3 days and integrates with General Scientific Program on Saturday and Sunday. That program includes the details for keynotes, symposium and oral sessions.

PROGRAM SPONSOR

nox MEDICAL

FRIDAY, MARCH 14, 2025

8:00-8:15 AM
Welcome

8:15-9:15 AM
Sleep changes in aging and with Alzheimer's disease
PRESENTED BY: Andrée-Ann Baril

9:15-10:15 AM
Sleep, neurodevelopment and mental health in children and adolescents
PRESENTED BY: Emmett Rabot

10:30-11:30 AM
How to measure children's sleep at home?
PRESENTED BY: Marie-Hélène Pennestri

11:30-12:30 PM
REM sleep behaviour disorder: a window on brain neurodegeneration
PRESENTED BY: Shady Rahayel

12:30-1:00 PM
Lunch

1:00 - 3:00 PM
PSG Scoring Bootcamp
PRESENTED BY: Benoît Adam

SATURDAY, MARCH 15, 2025

10:45-11:45 AM
Positive pressure therapy during PSG in adults
PRESENTED BY: Diane Proteau

11:45-12:45 PM
Respiratory abnormalities during PSG - What actions should be prioritized?
PRESENTED BY: Chantal Lafond

12:45-1:45 PM
Lunch

1:45- 3:15 PM
Partner Presentations Confirmed: Nox, Axsome, Zoll (Session delivered in English)

3:15-3:30 PM
Closing Remarks

Note: Program is still in development and is subject to change

FRENCH TECHNOLOGIST PROGRAM DETAIL | MARCH 14-16, 2025

See General Scientific Program for session information for keynote sessions and the Sunday schedule of sessions.

FRIDAY, MARCH 14, 2025

WELCOME (TECHNOLOGIST PROGRAM FR)

March 14, 8:00 am - 8:15 am

About the session

Welcome to the 2025 technologist program (FR)! Join us to learn more about sleep science and sleep medicine.

Speaker: Élyse Chevrier, Technologue en électrophysiologie médicale, Neuroperforma

SLEEP CHANGES IN AGING AND WITH ALZHEIMER'S DISEASE

March 14, 8:15 am - 9:15 am

About the session

This session will focus on sleep changes in normal aging, as well as in pathological cognitive aging, i.e. In the presence of cognitive decline or alzheimer's disease.

Speaker : Andrée-Ann Baril, Assistant Research Professor, Université De Montréal / Ciusss-Nim, Céams, Hôpital Du Sacré-Coeur De Montréal

Learning Objectives

- Understand the expected changes in sleep as people age.
- Identify sleep disturbances and disorders as a potential risk factor for cognitive decline.
- Consider the bidirectional relationship between Alzheimer's disease and sleep disorders.

SLEEP, NEURODEVELOPMENT AND MENTAL HEALTH IN CHILDREN AND ADOLESCENTS

March 14, 9:15 AM - 10:15 AM

About the session

Sleep is essential for the proper development of the brain. Children with neurodevelopmental issues are very often affected by sleep disturbances. These can have significant repercussions on neurodevelopmental symptomatology, as well as on emotional and thymic balance, cognitive and adaptive functioning, and quality of life for the person concerned and their family. Recommended first-line approaches to treating insomnia in children and adolescents are non-pharmacological, mainly including sleep education and behavioral interventions.

Speaker: Emmett Rabot, Psychiatrist, Université De Montréal, Ciusss-Nord-De-L'ile-De-Montréal

Learning objectives

- Review the current state of knowledge of sleep disorders in a neurodevelopmental context for the pediatric population.
- Detail the consequences of these sleep disorders on the neurodevelopment and mental health of children and adolescents with neurodevelopmental disorders.
- Present non-pharmacological approaches to their treatment.

BREAK
March 14, 10:15 AM - 10:30 AM

HOW TO MEASURE CHILDREN'S SLEEP AT HOME?
March 14, 10:30 am - 11:30 am
About the session
Unlike adults, when sleep difficulties are reported in children, the complaint often comes from the parent or other caregiver, rather than from the child him/herself. It is then necessary to determine how the child perceives the situation from his or her side, adapting to his or her age and reality. This presentation will look at the assessment of children's sleep at home, combining both the child's and the parent's perspective. Clinical, family and relational aspects will be addressed, describing the key elements used in clinical interviews with children and parents. This will be followed by a description of the various tools at our disposal when it is necessary to enhance our understanding of the clinical situation with a more objective or systematic perspective. These include sleep diaries, actigraphy and video-somnography. Some technical challenges will be discussed, and a few clinical vignettes will be presented.
Speaker: Marie-Hélène Pennestri, Associate Professor, Psychologist, Mcgill University, Ciusss-Nim
Learning objectives

- Become familiar with different ways of assessing children's sleep at home.
- Develop sensitivity to different clinical and family situations that may influence children's sleep.
- Combine subjective and objective tools to better understand the sleep situation in families.

REM SLEEP BEHAVIOUR DISORDER: A WINDOW ON BRAIN NEURODEGENERATION
March 14, 11:30 am - 12:30 pm
About the session
Rem sleep behavior disorder (rbd) is a parasomnia characterized by a loss of muscle atonia during rem sleep and the appearance of abnormal movements during dreams. Nearly 90% of people with rbd will develop parkinson's disease or lewy body dementia. People with rbd already show clinical and brain characteristics that resemble those found in these diseases. The study of brain changes associated with rbd therefore represents a window of opportunity to understand the early neurodegenerative mechanisms involved in the development of these diseases.
In this presentation, we will discuss the diagnostic criteria and main clinical features of rbd. We will discuss the relationship between rbd and the development of neurodegenerative diseases, primarily the models that explain the relationship of this sleep disorder with brain neurodegeneration. We will support the presentation with discussions and the presentation of recent articles showing the potential of neuroimaging to predict ongoing pathological trajectories in people with rbd.

Symposium Chairperson: Shady Rahayel, Assistant Research Professor, Center For Advanced Research In Sleep Medicine

Learning objectives

- Describe the clinical features central to REM sleep behavior disorder.
- Explain the association of REM sleep behavior disorder with neurodegenerative diseases.
- Discuss the latest advances in biomarkers of progression to neurodegenerative diseases in REM sleep behavior disorder.

LUNCH

March 14, 12:30 PM - 1:00 PM

PSG SCORING BOOTCAMP

March 14, 1:00 pm - 3:00 pm

Speaker: Benoît Adam, Technologue en électrophysiologie médicale | CIUSSS NIM, Hôpital du Sacré-Coeur de Montréal, CÉAMS

If you're expected to review polysomnographic recordings, assign sleep stages, identify micro-arousals, describe behaviors, then you know all too well that knowing the rules doesn't necessarily make them easy to apply. All too often, there's that ambiguous time that leaves you undecided, that uncertain plot segment that makes you want to pull your hair out.

This session aims to put you in the best possible position to see things clearly, to help you scrutinize the details without losing sight of the big picture, and to give you the means to increase your consistency and productivity.

Through the presentation of concrete examples, you'll be able to distinguish the slow from the fast, the simple from the complex, the ordinary from the noteworthy.

Learning objectives

- Analyze complex polysomnographic tracings
- Explain the criteria for classifying sleep stages
- Optimize productivity and efficiency in polysomnographic analysis

SATURDAY, MARCH 15, 2025

POSITIVE PRESSURE THERAPY DURING PSG IN ADULTS
March 15, 10:45 am - 11:45 am
About the session
Initiating positive pressure therapy in the laboratory can be quite a headache. When? When? Why? Which parameters? Which ventilation modes? These are simple questions, to which you'll find the answers.
This presentation will inform you about the various laboratory titration procedures. You'll also learn about the different modes of bi-level non-invasive ventilation (niv) and the synchronization of breathing in niv with the aim of achieving optimal ventilation for the patient. All based on aasm recommendations and guidelines.
Speaker: Diane Proteau, Respiratory Therapist, Laboratoire Du Sommeil ; Ciusss Du Nord De L'île De Montréal ; Hscm
Learning objectives

- Explain the different titration procedures for positive pressure therapy in the laboratory.
- Compare bi-level non-invasive ventilation (niv) modes and their clinical applications.
- Explain the importance of respiratory synchronization in vni and its contribution to treatment efficacy.

RESPIRATORY ABNORMALITIES DURING PSG - WHAT ACTIONS SHOULD BE PRIORITIZED?
March 15, 11:45 am - 12:45 pm
Speaker: Chantal Lafond, Respirologist, Clinical Associate Professor, Director Of The Laboratoire Des Troubles Respiratoires Du Sommeil, Hôpital Du Sacré-Coeur De Montréal
Learning objectives

- Recognize and attempt to resolve the obstructive versus non-obstructive nature of a respiratory abnormality.
- Recognize and attempt to resolve a hypoventilation component (in the absence of upper airway obstruction).
- Select the most appropriate interface for a patient when adjusting positive pressure ventilatory support therapy.

LUNCH
12:45 – 1:45 PM

PARTNER PRESENTATIONS
March 15, 1:45 PM - 3:15 PM
About the Session
Join us for 15-minute presentations from our conference partners.

Canadian Sleep Society | Société Canadienne du Sommeil

CLOSING (TECHNOLOGIST PROGRAM EN/FR)
March 15, 3:15 PM - 3:30 PM
Speakers:
Colin Massicotte, Team Lead, Sleep Technologists, Sickkids
Élyse Chevrier, Technologue en électrophysiologie médicale, Neuroperforma
Santixay (Sonny) Homsombath, Polysomnographic Technologist, Alberta Health Services

2025 Canadian Sleep Society Conference

BEHAVIOURAL SLEEP MEDICINE PROGRAM

MARCH 14, 2025

MONTRÉAL

12th CSS Congress

It's time to talk about sleep.

BEHAVIOURAL SLEEP MEDICINE PROGRAM

This program is designed for clinical psychologists and trainees. In the morning, learn from experts about the treatment of disorders of delayed sleep phase, shift work and nightmares. In the afternoon, join colleagues from other disciplines to learn about CBT-I and how we can all increase Canadians' access to this first-line treatment for insomnia.

8:00-8:05 AM
Behavioural Sleep Medicine Opening
CHAIRPERSON: Sheila Garland

8:05-9:05 AM
Delayed Sleep-Wake Phase Disorder: Role of Biology, Behavior and Environment
PRESENTED BY: Phyllis Zee

9:05-10:05 AM
Sleep in the Context of Atypical Work Schedules: Behavioral and Circadian Intervention
PRESENTED BY: Annie Vallières

10:20-11:20 AM
Treating Nightmares in Adults with Imagery Rehearsal Therapy (IRT)
PRESENTED BY: Geneviève Belleville

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11:20- 12:20 PM
Speaking of Sleepy Girl Mocktails… Sleep trends and gadgets that arise in your insomnia practice
PRESENTED BY: Colleen Carney and Judith Davidson

12:20-1:00 PM
Lunch

1:00-3:30 PM
Insomnia Care on Every Corner: A Stepped Care Approach

PRESENTED BY:
Judith Davidson
David Gardner
Eileen Sloan
Erin Desmarais
Katherine Fretz
Stephanie Lynch

Note: Program is still in development and is subject to change

sleepconference.ca

March 14, 2025

BEHAVIOURAL SLEEP MEDICINE PROGRAM – DETAIL

BEHAVIOURAL SLEEP MEDICINE OPENING
March 14, 8:00 AM - 8:05 AM
Speaker: Sheila Garland, Memorial University

Delayed Sleep-Wake Phase Disorder: Role of Biology, Behavior and Environment
March 14, 8:05 AM - 9:05 AM
Speaker: Phyllis Zee, Professor, Director of the Center for Circadian and Sleep Medicine, Chief of Sleep Medicine, Northwestern University
Learning Objectives

- Identifying the key components of the body's internal clock underlying the Pathobiology of delayed sleep wake phase disorder (DSWPD).
- Recognize the behavioral and environmental factors that can disrupt circadian rhythms and may contribute to DSWPD.
- Discuss current and future diagnostic methods and personalized treatment options for DSWPD.

SLEEP IN THE CONTEXT OF ATYPICAL WORK SCHEDULES: BEHAVIORAL AND CIRCADIAN INTERVENTION
March 14, 9:05 AM - 10:05 AM
About the Session
The aim of this conference is to provide a better understanding of atypical work schedules and their effects on sleep and mental and physical health, and to present behavioral, cognitive and circadian interventions that can be proposed to workers. At the end of the session, participants should be able to propose and apply interventions based on the analysis of the context of working atypical hours and the reported effects on health. The session will include a question period, and particular attention will be paid to clinical issues raised by the audience.
Speaker: Annie Vallières, Professor, Laval University
Learning Objectives

- Analyze the effects of atypical working hours on sleep and mental and physical health.
- Explain the behavioral, cognitive and circadian interventions that can be offered to workers on atypical schedules.
- Explain and apply customized interventions based on an analysis of the context of working atypical hours and the reported effects on health.

BREAK
March 14, 10:05 AM - 10:20 AM

TREATING NIGHTMARES IN ADULTS WITH IMAGERY REHEARSAL THERAPY (IRT)

March 14, 10:20 AM - 11:20 AM

About the Session

This session introduces Imagery Rehearsal Therapy (IRT), an effective treatment for nightmares based on cognitive-behavioral techniques. Recurrent and distressing nightmares affect 1 to 15% of adults, with a higher prevalence among trauma-exposed populations, underscoring the need for targeted interventions by clinicians. The session begins with an overview of nightmare epidemiology, highlighting prevalence and risk factors to illustrate the significant impact of chronic nightmares on mental health. It then addresses the cognitive-behavioral framework for understanding nightmares, explaining the psychological mechanisms that differentiate them from other sleep disturbances and the distress they can cause. Participants will learn how nightmare content, often rooted in traumatic imagery, can be effectively modified through IRT. Through practical exercises and case discussions, participants will develop skills to apply IRT strategies, helping clients approach disturbing dream images and regain a sense of mastery over their dreams. By rehearsing alternative, adaptive images, clients can reduce the frequency and emotional intensity of nightmares, leading to improvements in sleep quality and overall well-being.

Speaker: Geneviève Belleville, Psychologiste, Professor, Université Laval

Learning Objectives

- Explain the epidemiology of nightmares.
- Apply a cognitive-behavioral framework to conceptualize nightmares.
- Understand IRT techniques to guide clients in modifying dream content and reducing nightmare-related distress.

SPEAKING OF SLEEPY GIRL MOCKTAILS! SLEEP TRENDS AND GADGETS THAT ARISE IN YOUR INSOMNIA PRACTICE

March 14, 11:20 AM - 12:20 PM

About the Session

Your insomnia clients undoubtedly encounter lots of (mis)information on the internet and social media and bring it to session. Drs. Judith Davidson and Colleen Carney tackle current behavioural sleep medicine topics and trends on social media.

Topics include: What is orthosomnia? What if a CBT-I client is wedded to their personal sleep tracker? What is bedtime procrastination? What is bed rotting? How should we handle these topics in case formulation and treatment?

These two CBT-I therapists (non-users of TikTok) talk about sleep effort and fads like Sleepy Girl Mocktails – a trend that has amassed over 58 million views. We invite you to raise other trends that you have encountered. Fun topics with practical, evidence-informed advice for your practice.

Speakers

Colleen Carney, Professor and Director of the Sleep and Depression Laboratory, Toronto Metropolitan University

Judith Davidson, Clinical and Health Psychologist, Adjunct Professor, Queen's University

LUNCH
March 14, 12:20 PM - 1:00 PM

INSOMNIA CARE ON EVERY CORNER: A STEPPED CARE APPROACH
March 14, 1:00 PM - 3:30 PM
About the Session
No matter what your healthcare discipline is, you can help the person with insomnia using evidence-informed strategies. Our interprofessional team will show you how to find your place(s) within the stepped care model. In this interactive workshop, you will receive information on CBT-I: what it is, how it works, and how to point the person in the direction of this first-line treatment for Insomnia Disorder.
Speakers:
David Gardner, Professor and Director of Community Psychiatry Research, Department of Psychiatry, Dalhousie University
Eileen Sloan, Department of Psychiatry, University of Toronto
Erin Desmarais, Social Worker, Queens University (Queens Family Health Team)
Judith Davidson, Clinical and Health Psychologist, Adjunct Professor, Queen's University
Katherine Fretz, Registered Psychologist, CHIR
Stephanie Lynch, Pharmacist, Queen's University Department of Family Medicine
Learning Objectives

- Identify where you are in the stepped care model and what you can provide to the person with Insomnia Disorder.
- Name and explain the two most powerful components of CBT-I.
- State what you would do if a patient wished to discontinue long-term use of sedative-hypnotic medication.

2025 Canadian Sleep Society Conference

TRAINEE DAY PROGRAM
MARCH 14, 2025

MONTRÉAL
12th CSS Congress
It's time to talk about sleep.

TRAINEE PROGRAM

The Trainee Day takes place on Friday, March 14, 2025. Trainees are invited to register for the Trainee Program and the General Scientific Program on Saturday and Sunday.

Registration options:
1. Three days (includes general scientific program) - March 14-16, 2025
2. One day only - March 14, 2025

FRIDAY, MARCH 14, 2025

8:00-8:30 AM
Welcome

8:30-9:30 AM
Scientific Speed Dating (over breakfast, included)

9:30-11:00 AM
Trainee Talks

11:00-12:00 PM
Keynote Talk: Misperception of Sleep and Sleepiness: Two Sides of the Same Coin?
PRESENTED BY: Andrea Galbiati

12:00-1:00 PM
Advisory Lunch

1:00- 2:30 PM
Introduction to EEG signal analysis and use of Snooze, a tool recently developed by the Quebec Sleep Research Network
PRESENTED BY: Jean-Marc Lina and Karine Lacourse

2:30 - 3:30 PM
Trainee Poster Session

4:00 - 7:45 PM
Trainees join the general scientific program opening keynotes & Welcome Reception

Note: Program is still in development and is subject to change

TRAINEE DAY PROGRAM - DETAILS

OPENING REMARKS
March 14, 8:00 AM - 8:30 AM
About the Session
Welcome to the 2025 CSS Conference Trainee Day! We are thrilled to have you join us for this inspiring day of networking and learning!
Speakers
Nadia Gosselin, Co-director of the Quebec Sleep Research Network, Université de Montréal, Réseau québécois de recherche sur le sommeil
Tanya Leduc, PhD candidate, Université de montréal
This year, we are happy to partner with the Quebec Sleep Research Network to bring you the 2025 Trainee Day.

Réseau sommeil

The Quebec Sleep Research Network is powered by the Fonds de recherche du Québec.

Fonds de recherche Québec

SCIENTIFIC SPEED DATING (OVER BREAKFAST)
March 14, 8:30 AM - 9:30 AM
About the Session
Join us for a dynamic scientific "speed dating" session, where participants will engage in quick, insightful discussions across diverse fields. Each participant will receive a table number upon arrival and sit with a pre-mixed group of trainees. Over the course of 45 minutes, you'll have 7 brief discussions, allowing for fast-paced networking and idea exchange. This session is a great opportunity to broaden your knowledge and connect with fellow researchers.

TRAINEE TALKS
March 14, 9:30 AM - 11:00 AM
About the Session
Join us for an exciting session featuring short talks by talented trainees, selected based on the quality of their submitted abstracts. Each speaker will present their work in a 15-minute talk. This session offers a diverse range of cutting-edge research, highlighting the next generation of scientific leaders.
Speakers :
Catherine Leclerc, Université de Montréal
Jacques Le Bouthillier, Université Laval
Nicholas Van den Berg, PhD, Royal Military Academy, Belgium
Noa Gilad, University of Toronto
Russell Luke, University of Toronto

KEYNOTE: MISPERCEPTION OF SLEEP AND SLEEPINESS: TWO SIDES OF THE SAME COIN?
March 14, 11:00 AM - 12:00 PM
Speaker: Andrea Galbiati, PhD, Assistant Professor, Università Vita-Salute San Raffaele

ADVISORY LUNCH
March 14, 12:00 PM - 1:00 PM
About the Session
Join us for an advisory lunch, where you'll have the opportunity to engage with invited speakers on a variety of topics. Enjoy lunch while seated at tables with invited speakers and others attendees per table. Speakers will share insights on a multitude of topics, such as career avenues, postdoc opportunities, scientific communication, patient engagement, etc. This is a great chance to gain valuable advice from experts in various fields.

INTRODUCTION TO EEG SIGNAL ANALYSIS USING THE SNOOZ TOOLBOX
March 14, 1:00 PM - 2:30 PM
Speakers:
Jean-Marc Lina, Professor, École de technologie supérieure
Karine Lacourse, B.Ing., M.Sc.A., Algorithm Designer, Center for Advanced Research in Sleep Medicine

POSTER SESSION (TRAINEE DAY PROGRAM)
March 14, 2:30 PM - 3:30 PM

Please refer to the General Scientific Program for Friday opening keynotes and Saturday and Sunday presentations.

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PROGRAM ACCREDITATION: CME, CEC, CDE and CPA INFORMATION

CME CREDIT INFORMATION FOR PRIMARY CARE AND GENERAL SCIENTIFIC PROGRAMS

Declaration of continuing education to the Collège des médecins du Québec: Physicians participating in this activity may declare 21.5 hour(s) of recognized professional development in category A, under the tab “Activity recognized by a organisme québécois agréé en formation continue”.

This activity 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; it has been approved by the Direction du DPC de la Faculté de médecine de l'Université de Montréal for a maximum of 21.5 hour(s).

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 2025 three-day program is 22.75 credits and it breaks down by day:

CREDITS AVAILABLE	Friday	Saturday	Sunday	TOTAL
TECHNOLOGIST	7.75 credits	8.5 credits	6.5 credits	22.75 credits

Continuing Professional Development for Psychologists

“The Canadian Sleep Society is approved by the Canadian Psychological Association to offer continuing education for psychologists. The Canadian Sleep Society maintains responsibility for the program.” Upon completion, participants will receive a certificate of attendance.

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