Join us for the 15th World Sleep Congress

World Sleep 2019
SEPTEMBER 20-25, 2019 • VANCOUVER, CANADA

A JOINT CONGRESS OF WORLD ASSOCIATION OF SLEEP MEDICINE AND WORLD SLEEP FEDERATION
Dear Colleagues and Friends,

Welcome to World Sleep 2017 the first congress of the new World Sleep Society, which represents combining together the World Association of Sleep Medicine (WASM) and World Sleep Federation (WSF). This year’s program is extremely robust, featuring over 278 hours of scientific content that includes 16 keynotes, 102 symposia, 18 courses, 138 oral abstract presentations, and 1,168 accepted abstracts.

The congress is hosted by the historic city Prague, located in the heart of Europe, and brings the best in sleep medicine to Prague by providing an international discussion forum of sleep professionals from the entire world. It focuses particularly on the interdisciplinary character of our field. Sleep scientists, clinicians, educators, technologists, and trainees from around the world will meet to advance knowledge on sleep science, chronobiology, sleep in public health, sleep health and the diagnosis and treatment of sleep-wake disorders. We seek to maximize learning both from formal presentations by the leading experts in their fields and from informal discussion groups emphasizing opportunities for your participation.

Your involvement in this congress is greatly valued. You may learn and share knowledge and skills that will advance sleep health throughout the world. We are very pleased you have joined us for the science, learning, collegiality, networking and social events at this historic first congress of the World Sleep Society, the 14th congress of the combined WASM and WSF.

Sincerely,

World Sleep 2017 Program Committee

Richard Allen, PhD
Colin Espie, PhD, DSc
Clete Kushida, MD, PhD
Soňa Nevšímalová, MD, DrS
Allan O’Bryan
Thomas Penzel, PhD
Claudia Trenkwaldner, MD
Anthony Williams

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5TH CONGRESS OF THE INTERNATIONAL PEDIATRIC SLEEP ASSOCIATION

IPS2018.COM

April 27-29, 2018

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VENUE
IPS2018 will take place in The Palais des Congrès de Paris.

Address:
Palais des Congrès de Paris
2 place de la Porte Maillot,
75017 Paris

ABSTRACTS
Abstract submission starts
November 1, 2017 with a
deadline of March 31, 2018. Accepted abstracts
will be published on IPSA’s website as part of the congress proceedings.

SYMPOSIA
Symposium submission
deadline is January 31,
2018. Symposium can be submitted and early acceptance will be sent.

Carole L. Marcus, MBBC
New developments in childhood OSAS
Director of the Sleep Center at Children’s Hospital of Philadelphia,
Perelman School of Medicine, University of Pennsylvania (US)

Monique K. LeBourgeois, PhD
Sleep Regulation in early childhood: Insights into the
development of behavioral sleep problems
Department of Integrative Physiology, University of Colorado,
Boulder (US)

Marion Leboyer, MD, PhD
Microbiome and psychiatric disorders in children
Hôpital Albert Chenevier,
University of Paris Est (UPEC) (France)

Mark S. Blumberg, PhD
REM sleep twitches and sensorimotor development
Director of The Delta Center,
University of Iowa, Iowa City (US)

FOR MORE INFORMATION VISIT, IPS2018.COM
Mission Statement

The fundamental mission of the World Sleep Society is to advance sleep health worldwide. World Sleep Society will fulfill this mission by promoting and encouraging education, research and patient care throughout the World, particularly in those parts of the world where the practice of sleep medicine is less developed. World Sleep Society will act as a bridge between different sleep societies and cultures, supporting and encouraging worldwide exchange of clinical information and scientific studies related to sleep medicine. World Sleep Society will seek to encourage development and exchange of information for world-wide and regional standards of practice for sleep medicine.

Goal and Purpose

The goal and purpose of the World Sleep Society is to advance knowledge about sleep, circadian rhythms, sleep health, and sleep disorders worldwide, especially in those parts of the world where this knowledge has not advanced sufficiently. This endeavor will promote clinical and scientific information for scientists, health care personnel, and the general public. The World Sleep Society will foster international exchanges among scientists, physicians, psychologists, nurses, physician assistants, technologists, and other medical and research personnel interested in the sleep field. In this manner it is expected that sleep science and medicine can advance for all populations to improve the quality of life of individuals throughout the world. The World Sleep Society will promote world-wide sleep health by advancing public education, supporting public policies related to sleep health, and supporting sleep research.

World Sleep Society currently represents over 823 individual members, 26 societies. It is located in over 64 countries and will continue to operate programs of both the World Sleep Federation (WSF) and World Association of Sleep Medicine (WASM). Programs consist of education, awareness, and member services.
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**General Information**

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3270 19th Street NW • Suite 109  
Rochester, MN 55901  
Ph: (507) 316-0084  
Fax: 001-612-465-5357  
www.worldsleepsociety.org

**Meeting Location**  
Prague Congress Centre  
5. kvetna 65  
140 21 Prague 4  
Czech Republic  
630 80 24

**Opening Ceremony Location**  
Municipal House  
nám. Republiky 5  
111 21 Praha 1-Staré Město  
Czech Republic

**Gala Dinner Location**  
Slovansky dum (Slavic House)  
Na Příkopě 22, 110 00 Praha 1-Nové Město, Czechia

**Closing Ceremony Location**  
Prague Congress Centre  
5. kvetna 65  
140 21 Prague 4  
Czech Republic  
630 80 24

**Registration Desk Hours**  
Friday 5:00 P.M. to 8:00 P.M.  
Saturday 7:00 A.M. to 5:00 P.M.  
Sunday 7:00 A.M. to 5:00 P.M.  
Monday 7:00 A.M. to 7:00 P.M.  
Tuesday 7:00 A.M. to 7:00 P.M.  
Wednesday 7:00 A.M. to 7:00 P.M.

**Exhibit Hall Hours**  
Monday 10:00 A.M. to 4:00 P.M.  
Tuesday 10:00 A.M. to 4:00 P.M.  
Wednesday 10:00 A.M. to 4:00 P.M.

**Opening Ceremony**  
Sunday, October 8, 2017: The Opening Ceremony of World Sleep 2017 will take place in the beautiful Municipal House located in the heart of Prague. This Art Nouveau treasure dominates the site of the former Royal Court. The ceremony will feature award presentations and classic Czech music played by a 65-piece orchestra. We expect over 1,000 delegates to attend this historic opening ceremony of the first joint congress of World Association of Sleep Medicine (WASM) and World Sleep Federation (WSF).

**Agenda**  
6:00pm to 6:30pm  
Opening Welcome, awards, and concert introduction  
6:30pm to 7:30pm  
Concert of the Prague Radio Symphony Orchestra, with conductor T. Brauner

**Gala Dinner**  
Monday, October 9, 2017: The Gala Dinner will feature entertainment, dinner, and beverages. “A ticket will need to be purchased to attend.”

The gala will be held at Slovansky dum (Slavic House) in Prague. Join attendees to celebrate and network over dinner and drinks. This is an exclusive event limited to 320 tickets. Purchase a single ticket or a table of eight. Entertainment will be provided by a local jazz band followed by a black light theatre production.

**Networking Opportunities**  
Plan to partake in networking events while attending congress to meet some of the names behind the research. Cost to attend events is included in the registration fee unless otherwise stated. Please make sure to wear your badge to non-ticketed events.

**World Sleep Day Networking Event**  
Monday, October 9, 2017, 1 P.M., Room 221: Join several of our World Sleep Day 2017 delegates and past Distinguished Activity Award winners at the World Sleep Day Networking Event in Prague! You did not need to host an event to join us.

**Coffee Breaks**  
Monday, October 9-Wednesday, October 11: Take a break from the exhibits and stop in for a cup of coffee. Available during exhibition hours at 10:00am and 2:00pm.

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other documentation is provided to you after this CME activity. The Record of Attendance has replaced the certificate. The Record of Attendance can be used for requesting credits in accordance with state licensing boards, specialty societies, or other professional associations.

CME Activity Evaluation
The overall CME activity evaluation will be emailed following the activity to the email address that was provided when you registered. The CME activity evaluation is brief and will only take a few minutes to complete. Faculty evaluation forms will be provided electronically via email to registrants. Completed faculty evaluation forms should be completed online at the conclusion of the CME activity and within one week of the congress. Your feedback is very important to us and will be used for planning future programs, as well as identifying faculty strengths and opportunity for growth.

CME Registration Required
Please complete the following steps to receive CME credit:
1. Purchase the $25 CME fee at registration desk.
2. Obtain the CME Record of Attendance at registration desk.
3. Turn in CME Record of Attendance once completed to registration desk or email to info@worldsleepsociety.org by November 1, 2017.
4. Complete the faculty, session, and congress evaluations. Evaluations will be collected electronically and sent via email each day.

Elsevier Awards

The international panel of sleep specialists convened to score abstracts for the selection of the Elsevier Awards for 2017 to recognize two young basic and clinical sleep specialists. The panel, integrated by Antonio Culebras, MD (United States), Liborio Parrino, MD (Italy), Elena Majano, MD (El Salvador), and Melissa Lipford, MD (United States), has made the following selection:

Christian Guilleminault Award
Gianluca Sesso
Electrophysiological and microstructural features of sleep in children at high risk for depression: a preliminary study.

Elio Lugaresi Award
Tatyana Moliyeva
Sleep stage distribution in persons with mild traumatic brain injury: A polysomnographic study according to American Academy of Sleep Medicine Standards.

Young Investigator Awards 2017

The following award winners will present during S38 Young Investigator: Sleep research in neurodegeneration:
Monday, October 9 from 5:30 to 7:00 P.M.

Carmen Gutierrez Muñoz (Spain)
DIFFERENT MARKERS IN IDIOPATHIC RAPID EYE MOVEMENT (REM) SLEEP BEHAVIOUR DISORDER (RBD), POSSIBLE PREDICTORS OF CONVERSION TO DIFFERENT TYPES OF ALPHA-SINUCLEINOPATHIES

Danay Clarissa Espinoza Castro (Chile)
ENVELOPE ANALYSIS OF ELECTROMYOGRAM IN REM SLEEP BEHAVIOR DISORDER PATIENT

Gohei Yamada (Japan)
STRIATAL DYSFUNCTION AND DIMINISHED FUNCTIONAL CONNECTIVITY IN IDIOPATHIC REM SLEEP BEHAVIOR DISORDER WITH SUBTLE MOTOR ALTERATION

Kangping Xiong (China)
INCREASED SERUM CYSTATIN C IN PARKINSON’S DISEASE WITH OBJECTIVE SLEEP DISTURBANCE

Michela Figorilli (Italy)
DIAGNOSING REM SLEEP BEHAVIOR DISORDER IN PARKINSON DISEASE WITHOUT A GOLD STANDARD: A LATENT CLASSES MODELS STUDY

Yaping Liu (Hong Kong)
FAMILIAL AGGREGATION OF REM SLEEP BEHAVIOR DISORDER AND NEURODEGENERATIVE BIOMARKERS: A CASE-CONTROL FAMILY STUDY
Young Investigator Awards 2017

The following award winners will present during S77 Young Investigator: Sleep research in respiratory sleep medicine:

**Tuesday, October 10 from 5:30 to 7:00 P.M.**

**Anupama Gupta (India)**
WHY IS OBSTRUCTIVE SLEEP APNEA IN PEOPLE WITH RESISTANT HYPERTENSION MISSED SO OFTEN – A CLINICAL AND POLYSOMNOGRAPHIC CASE-CONTROLLED STUDY

**Iana Andreieva (Ukraine)**
CARDIAC BIOMARKERS IN PATIENTS WITH OBSTRUCTIVE SLEEP APNEA SYNDROME AND HEART FAILURE WITH PRESERVED EJECTION FRACTION

**Jennifer M Cori (Australia)**
HYPOCAPNIA HAS MINIMAL INFLUENCE ON GENIOGLOSSUS MUSCLE AFTER-DISCHARGE ELICITED BY AROUSAL FROM SLEEP IN HEALTHY INDIVIDUALS

**Rodrigo Tomazini Martins (Australia)**
EFFECTS OF MORPHINE ON THE PHENOTYPIC CAUSES OF OBSTRUCTIVE SLEEP APNEA

**Yu Sun Bin (Australia)**
DOES MATERNAL SLEEP APNEA AFFECT CHILDHOOD HEALTH AND EDUCATIONAL OUTCOMES? A LONGITUDINAL STUDY USING POPULATION RECORD LINKAGE

**Anabel Castro-Grattoni (Spain)**
IMPACT OF INTERMITTENT HYPOXIA ON CARDIOVASCULAR REMODELING IN A MURINE MODEL OF SLEEP APNEA; EFFECT OF AGE

Young Investigator Awards 2017

The following award winners will present during S99 Young Investigator: Oral presentation:

**Wednesday, October 11 from 5:30 to 7:00 P.M.**

**Anja Holm (Denmark)**
THE EVOLUTIONARY CONSERVED microRNA miR-137 REGULATES GENE EXPRESSION AND DIURNAL RHYTHM OF THE WAKE-PROMOTING HYPOCRETIN NEUROPEPTIDES

**Giovanni Piantoni (Netherlands)**
ULTRA-SLOW (0.0002 Hz) FLUCTUATIONS IN HUMAN INTRACRANIAL RECORDINGS CORRELATE WITH SLEEP

**Janet M.Y. Cheung (Canada)**
TRAJECTORIES OF USE OF OVER-THE-COUNTER AND NATURAL PRODUCTS FOR SLEEP: A FIVE YEAR FOLLOW-UP

**Lampros Perogamvros (Switzerland)**
EXPERIENCING FEAR IN DREAMS RELATES TO BRAIN RESPONSES TO AVERSIVE STIMULI DURING WAKEFULNESS

**Lucie Barateau (France)**
EXPLORATION OF CARDIAC AUTONOMIC FUNCTION BY MYOCARDIAL 123-I-MIBG SCINTIGRAPHY IN NARCOLEPSY TYPE 1

**Michael Prerau (United States)**
SEEKING A NEW STANDARD: A NOVEL CHARACTERIZATION OF SLEEP SPINDLES THROUGH TIME-FREQUENCY PEAK ANALYSIS

World Sleep Day Distinguished Activity Awards

Dr. Elena Majano de Cariás (El Salvador)
Dr. Nevin Zaki / Dr. Nesreen Elmorsy & Mansoura University
Safety Society (Egypt)
Montida Veeravigrom, M.D. / Sleep Society of Thailand (Thailand)
Dr. David Lira (Peru)
Dr. Laura Palagini / Italian Association of Sleep Medicine (Italy)
María Montserrat Sánchez Ortúño / School of Nursing University of Murcia (Spain)

2017 Honororable Mention

Portuguese Sleep Association (Portugal)
Khosro Sadeghniiat Haghighi / Baharloo Hospital (Iran)
Lenise Jihe Km / Brazilian Sleep Society (Brazil)
Dr. Miguel Meira e Cruz (Portugal)
Patricia van Wijk / SleepNet-BreatheNet Sleep Clinic (South Africa)
Dr. Surya Prakash (India)
Dr. Ravi Gupta / ISSR (India)
Rayleigh Ping-Ying Chiang / International Sleep Science and Technology Association & AM Life International (Malaysia)
Kenya Felicissimo / Brazilian Association of Sleep (Brazil)

2016 World Sleep Day Distinguished Activity Awardees

Portuguese Association of Chronobiology and Sleep Medicine and the Portuguese Society of Hypertension (Portugal)
Brazilian Sleep Society (Brazil)
Liborio Parrino (Italy)
Matilde Valecia Flores (Mexico)
Am Life International / Lew Mun Yee (Malaysia)

2015 World Sleep Day Distinguished Activity Awardees

Australasian Sleep Association and Sleep Health Foundation / Sarah Biggs (Australia & New Zealand)
Elena Majano (El Salvador)
Kiril Terziyski (Bulgaria)
Peruvian Institute of Neurosciences – David Lira (Peru)
Russian Society of Somnologists Youth Committee of Russian Society of Somnologists (Russia)

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World Sleep 2017 App

1. Download
Visit the iTunes store or Google Play store to download the World Sleep 2017 App. View and search speaker names, sessions, rooms and topics in one easy App.

2. Connect
Don't forget to post your favorite science and selfies on Facebook and Twitter with the hashtag #WorldSleep2017!

3. Play
Pick up a #WorldSleep2017 BINGO card to share, post and win! Bingo winners will be entered to win a 1st Prize of $400 USD. Prizes for 2nd and 3rd place will be Complimentary Registration to World Sleep 2019 in Vancouver, Canada. Details on worldsleepcongress.com/bingo.

Easy as 1...2...3...
K01: The evolution of human sleep based on present-day hunter-gatherers
How did humans sleep before the modern era? Because the tools to measure sleep under natural conditions were developed long after the invention of the electric devices suspected of delaying and reducing sleep, we investigated sleep in three preindustrial societies. We find that all three show similar sleep organization, suggesting that they express core human sleep patterns, most likely characteristic of pre-modern era Homo sapiens. Sleep periods, the times from onset to offset, averaged 6.9-8.5 hr, with sleep durations of 5.7-7.1 hr, amounts near the low end of those industrial societies [4-7]. There was a difference of nearly 1 hr between summer and winter sleep. None of these groups began sleep near sunset, onset occurring, on average, 3.3 hr after sunset. The sleep period consistently occurred during the nighttime period of falling environmental temperature, was not interrupted by extended periods of waking, and terminated near the nadir of daily ambient temperature. The daily cycle of temperature change, largely eliminated from modern sleep environments, may be a potent natural regulator of sleep. Napping occurred on <7% of days in winter and <22% of days in summer. Mimicking aspects of the natural environment might be effective in treating certain modern sleep disorders.

Soňa Nevšímalová, MD, DSc
Charles University (Czech Republic)
Monday, October 9
10:30am – 11:15am I Congress Hall
K02: Central hypersomnias through the eyes of time
Central hypersomnias have a long tradition in our country thanks to Bedrich Roth. The first cases of idiopathic hypersomnia were described more than 60 years ago, and Prof. Roth collected in the 70s and 80s the largest clinical cohort of 1,000 patients with excessive daytime sleepiness. Later research confirmed many of his ideas. According to present views, narcolepsy type 1 is an autoimmune disease due to a focal neurodegenerative process, while narcolepsy type 2 is a less clear clinical entity. Changes in biomarkers (particularly hypocretin and histamine) together with increasing attention to children’s cases helped to improve our knowledge of narcolepsy etiology. In spite of the disappearance of secondary narcolepsy from the latest International Classification (ICSD-3), rare cases due to brain damage by metabolic disorder (particularly Niemann-Pick type C disease) and/or tumors still exist. Idiopathic hypersomnia with long nighttime sleep, disappearing from the ICDS-3 as well, seems to be another separate disease with a strong genetic predisposition worth molecular analysis. Idiopathic hypersomnia without long sleep is a little vague clinical entity reminiscent of narcolepsy type 2. Of much etiological interest is also Kleine-Levin syndrome including different phenotypes with a variety of biomarkers and therapeutic results. Hence, central hypersomnias seem to be a hot topic for a new design of ICSD-4 classification.

Yuichi Inoue, MD, PhD
Tokyo Medical University (Japan)
Monday, October 9
11:15am – 12:00pm I Congress Hall
K03: Racial difference in sleep disorders
It is widely accepted that various factors including social life schedule, genetic background and bed room environment may affect nocturnal sleep. Given this, we should consider a possibility that frequency and symptomatic characteristics of sleep problems/disorders may differ depending on racial or regional difference. In this presentation, with aims of promoting sleep health and sleep medicine we would like to focus on difference in sleep habits as well as the prevalence and clinical characteristics (symptoms and treatment responses) of insomnia, narcolepsy, sleep related breathing disorders, movement disorders and parasomnias among populations in countries around the world.

Keynote Speakers
Clement Cheng-Hui Lin, MD  
Chang Gung Craniofacial Center, Surgery and orthodontics (Taiwan)  
Monday, October 9  
3:30pm – 4:15pm I Congress Hall

K04: Dental sleep medicine  
Underdevelopment of craniofacial region can be accompanied by small skeletal framework, disproportion between structures, and narrowed pharyngeal airway. Segmental Maxillomandibular Rotational Advancement (SMMRA) is designed specifically for Far-East Asian OSA patients with underdeveloped maxillomandibular skeleton, featured by narrow maxilla with crowded upper dental arch, high mandibular plane angle, mandibular retrognathism, retruded chin and a generally narrowed pharyngeal airway. SMMRA advances maxilla by two segments, counterclockwisely rotates the maxillomandibular complex to improve the mandibular plane angle, advance the mandible to the optimal extent, and forward the anterior inferior mandible including chin and genioglossus tubercle. The surgery may normalize the airway, facial skeleton, occlusion, and facial aesthetics at the same time.

Oliviero Bruni, MD  
Sapienza University of Rome, Pediatrics (Italy)  
Monday, October 9  
4:15pm – 5:00pm I Congress Hall

K05: History of pediatric sleep and the contribution of sleep microstructure  
The aim of this presentation is to depict the discovery of sleep physiology and pathology in infants and the emergence of the discipline of Pediatric Sleep Medicine as a relatively autonomous entity. The gradual awareness regarding sleep disorders in infants and children began in the 19th century; children sleep had been neglected until the end of the last century with the main textbook of Pediatrics reporting none or only few paragraphs devoted to pediatric sleep, although the first observation that lead to the discovery of REM sleep was made on neonates and infants, as well as the first study on the negative behavioral consequences of sleep apnea was run in children. Researchers from different countries made important contributions for the development of the pediatric sleep medicine and actually different health providers (pediatric pulmonologists, otolaryngologists, neurologists, orthodontists and psychologists) recognize the fundamental role of sleep for the child health and development. In the last few decades, the analysis of sleep microstructure and of cyclic alternating pattern (CAP) allowed a better understanding of the neurophysiological mechanisms of sleep disturbance, especially in children. CAP can be considered as a window on pediatric sleep, allowing a new vision on how the sleeping brain is influenced by a specific pathology or how sleep protecting mechanisms try to counteract internal or external disturbing events.

Commemorative Posters

Posters commemorating World Sleep 2017 are available for purchase to congress attendees. Pick up your poster at the Registration Desk!
Keynote Speakers

Chiara Cirelli, MD, PhD
University of Wisconsin-Madison (United States)
Tuesday, October 10
8:00am – 9:00am | Congress Hall

K06: Sleep and synaptic homeostasis
Sleep is universal, tightly regulated, and many cognitive functions are impaired if we do not sleep. But why? Why do our brains need to disconnect from the environment for hours every day? The synaptic homeostasis hypothesis (SHY) states that sleep is the price we pay for brain plasticity and predicts that synaptic connections throughout the brain undergo net potentiation during wakefulness, while we learn new facts and regularities about the environment. Synaptic renormalization during sleep restores the homeostasis of energy and cellular supplies, with beneficial effects at the cellular and systems level, including memory acquisition, consolidation, integration, and smart forgetting. I will discuss the rationale underlying this hypothesis and summarize previous electrophysiological, molecular and genetic studies in flies, rodents and humans that confirmed SHY’s main predictions. Synaptic size correlates with synaptic strength and most excitatory synapses in the cortex occur on spines. Thus, a strong prediction of SHY is that cortical spines should grow after wake and shrink after sleep, independent of circadian time. I will present new ultrastructural results obtained in mice using serial block face scanning electron microscopy that confirm this prediction, supporting the hypothesis that a core function of sleep is to renormalize overall synaptic strength increased by wake.

Mehdi Tafti, PhD
University of Lausanne, Basic Science (Switzerland)
Tuesday, October 10
10:30am – 11:15am | Congress Hall

K07: Sleep: From single neuron to behavior
Sleep is conserved throughout the evolution independent of the organization of the nervous system. This suggests that mechanisms regulating this complex behavior must also be conserved at the very basic molecular and cellular levels. We have shown that cortical cultures show robust similarities in terms of electrophysiology, transcription, and metabolism to the intact cortex of living animals. That sleep can occur in in vitro models is now reported by several groups. Such a simple model is very powerful for discovering the molecular and cellular bases of sleep. We recently showed that if cortical cultures are stimulated with waking neuromodulators, they show surprising homeostatic adaptations, very similar to the effects of sleep deprivation in animals. We also used this model to dissect the signaling pathways leading to the accumulation of plasticity-related transcripts during wakefulness. A major and highly evolutionary conserved pathway (Erk) was identified and we showed that Erk phosphorylation during wakefulness regulates sleep-related genes, sleep duration and consolidation in mice. Whether sleep is a self-sustained, cell autonomous, or a neural network property is under investigation.

Juliane Winkelmann, MD, PhD
Neurogenetics, Technische University Munich (Germany)
Chair, Institute of Neurogenomics, Helmholtz Zentrum München
Tuesday, October 10
11:15am – 12:00pm | Congress Hall

K08: Restless legs syndrome: Towards a new concept of the disease
Restless legs syndrome: Towards a new concept of the disease. Genome-wide association studies led to the identification of first genetic risk variants for RLS and ongoing meta-analysis of large consortia yealed to many new risk loci. Variants detected by this approach are common genetic variants, which individually confer only a minor increase in risk of the disease. Large scale sequencing studies complemented the picture and showed that RLS is a complex genetic disorders where common and rare genetic variants contribute to the phenotype. This knowledge changed our idea about our pathophysiological concept. Furthermore, we are gaining new ideas towards the mode of action of drugs and potential new drugs.
Keynote Speakers

Michael R. Irwin, MD
UCLA Semel Institute for Neuroscience, and David Geffen School of Medicine at UCLA (United States)
Tuesday, October 10
3:30pm – 4:15pm I Congress Hall

K09: Chronic insomnia and the immune response
Insomnia is considered a public health epidemic, which contributes to increased risk of inflammatory disorders and all-cause mortality. Dr. Irwin will provide an integrated understanding of the reciprocal relationships between sleep and inflammation; present innovative findings on impact of sleep on the regulation of genomic, cellular, and systemic markers of inflammation, as well as molecular processes of cellular aging; and demonstrate the robust efficacy of insomnia treatment to reverse inflammatory activation in humans.

Allison Harvey, PhD
University of California – Berkeley (United States)
Tuesday, October 10
4:15pm – 5:00pm I Congress Hall

K10: Treating sleep and circadian problems: A transdiagnostic approach
Past treatments for sleep and circadian disturbances have been disorder-focused—they have treated a specific sleep problem (e.g., insomnia) in a specific diagnostic group (e.g., depression). However, real life sleep and circadian problems are often not so neatly categorized: Features of insomnia commonly overlap with features of hypersomnia, delayed sleep phase and irregular sleep-wake schedules. To address this complexity, the process of developing and testing the Transdiagnostic Intervention for Sleep and Circadian Dysfunction (TranS-C) will be described. TranS-C is transdiagnostic in two ways; it treats a range of the most common sleep and circadian problems across mental disorders.

Fang Han, MD
Peking University (China)
Wednesday, October 11
8:00am – 9:00am I Congress Hall

K11: H1N1, seasonality and childhood narcolepsy
Narcolepsy is recognized different across ethnic groups in many aspects including prevalence, predisposing factors and clinical presentations. In a series of 2500 narcolepsy cataplexy patients received over 20 years in a sleep lab in China, narcolepsy symptoms onset is highly correlated with seasonal and annual patterns of upper airway infections. More specially, a large rise in childhood onset cases associated with the pH1N1 outbreak, but independent of vaccination, was noted in China, and the increased incidence returned to previous levels in 2011 till to the end of 2016. This allows further cross-ethnic comparisons, and facilitate our understanding of the neurologic autoimmune mechanisms of narcolepsy.

Isabelle Arnulf, MD, PhD
Pitié-Salpêtrière University Hospital (France)
Wednesday, October 11
9:45am – 10:30 am I Congress Hall

K12: Parasomnias: A window into dreams
Parasomnias in REM sleep (RBD) are newly identified behaviors strongly associated with neurodegeneration. Researches are now focused on following other early signs of neurodegeneration and developing neuroprotective therapy. In contrast, NREM parasomnias (sleepwalking, sleep terrors) have been identified for a century, but somehow neglected and considered as benign or childish behaviors. We would like to raise attention on the fact that these two adult parasomnias correspond to enacted dreams. In addition to be treatable medical disorders, they open a brief but exceptional window into the dreaming cognitive and motor activity. The ethology of all behaviors during sleep is an open field for investigation, including sleep-associated speeches, facial expressions, and movements. These dreaming mental images are made visible for external investigators. This is a plea for giving as much importance to video and audio at night as to functional brain imaging, in order to access to the complex brain functioning during sleep.

View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
Keynote Speakers

Michael Chee, MBBS
Duke-NUS Medical School (Singapore)
Wednesday, October 11
10:30am – 11:15am I Congress Hall
K13: Sleep restriction in adolescents: Cognitive effects and remedies
Adolescents in the developed world are sleeping less compared to previous generations. Reduced sleep is most prominent in East Asian countries where scholastic achievement is highly venerated. A snapshot of current sleep behaviors and factors underlying short sleep in one such country will be presented. Even in high performing adolescents, sleep restriction to 5h/night over a simulated school week causes degradation in vigilance, working memory, processing speed and mood. Such changes are exacerbated by as second cycle of sleep restriction. The encoding of schematic knowledge is affected but some other higher cognitive functions like creativity remain remarkably resistant to a week of sleep restriction. Napping for one hour in the afternoon can be of help for some cognitive operations. Starting school later has a positive effect on mood. Providing tools for evaluating time use can help shift behavior. The benefit of an integrated approach towards improving adolescent sleep involving multiple stakeholders will be discussed.

Debra Skene, BPharm, MSc, PhD
University of Surrey (United Kingdom)
Wednesday, October 11
11:15am – 12:00pm I Congress Hall
K14: Circadian rhythm sleep disorders: Challenges in diagnosis and treatment
The mismatch between the circadian timing system and behavioral rhythms in sleep/wake and feeding/fasting has both acute and chronic adverse effects on many physiological systems. Elucidation of the molecular clockwork, the melanopsin-mediated photic pathways and discovery of peripheral clocks throughout the body has provided not only new opportunities but also challenges in the diagnosis and treatment of circadian rhythm disorders. Accurate diagnosis of both central and peripheral clock timing in humans and the role of photic and nonphotic time cues (meals, melatonin) in synchronizing/resetting these rhythms will be discussed.

Mary Morrell, PhD
London, Sleep breathing disorders (United Kingdom), President of British Sleep Society
Wednesday, October 11
12:30pm – 1:15pm I Congress Hall
K15: Control of sleep-related breathing
This keynote lecture will explore the interactions between sleep and respiratory control that lead to sleep-related breathing disorders. In particular how measurement of physiological parameters such as upper-airway collapsibility, arousal threshold and loop gain may predict the development of sleep-related breathing disorders and responses to treatment. Such a personalised approach my improve adherence with therapy and help to target those who will benefit most from new treatments. Specifically in vulnerable groups such older people and patients with heart failure, in whom changes in sleep and respiratory control predispose to high rates of sleep-related breathing disorders.

Doug McEvoy, MD
Adelaide Institute for Sleep Health (Australia)
Wednesday, October 11
1:15pm – 2:00pm I Congress Hall
K16: Cardiovascular risk, OSA and CPAP (SAVE study)
Summary can be viewed online at www.worldsleepcongress.com.
## Schedule at a Glance

### 14th Czech-Slovak and 19th Congress of the Czech Society for Sleep Research and Sleep Medicine

**8:00am - 11:00pm I Meeting Hall 1A & 1B**

<table>
<thead>
<tr>
<th>Session</th>
<th>Time</th>
<th>Location</th>
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<tbody>
<tr>
<td><strong>C01 Pediatric sleep medicine</strong></td>
<td>8:00am - 5:00pm</td>
<td>I Club E</td>
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<tr>
<td><strong>C02 Insomnia therapeutics</strong></td>
<td>8:00am - 5:00pm</td>
<td>I Club A</td>
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<tr>
<td><strong>C100 International RLS Study Group: RLS is not just leg kicking</strong></td>
<td>8:00am - 5:30pm</td>
<td>I Club H</td>
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<tr>
<td><strong>C05 Technology and effective business models in sleep medicine</strong></td>
<td>8:00am - 12:00pm</td>
<td>I Club C</td>
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<tr>
<td><strong>C06 Biology and pharmacology of sleep</strong></td>
<td>8:00am - 12:00pm</td>
<td>I Club B</td>
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<tr>
<td><strong>C07 Circadian medicine</strong></td>
<td>8:00am - 12:00pm</td>
<td>I Club D</td>
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<tr>
<td><strong>C08 Ambulatory sleep medicine</strong></td>
<td>1:00pm – 5:00pm</td>
<td>I Club C</td>
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<tr>
<td><strong>C09 Sleep stages scoring and apnea scoring using computer lab equipment</strong></td>
<td>1:00pm - 5:00pm</td>
<td>I Room 221</td>
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<tr>
<td><strong>C10 Differential diagnosis of sleep disorders: Video seminar of different sleep disorders and review of treatment options</strong></td>
<td>1:00pm - 5:00pm</td>
<td>I Club B</td>
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<tr>
<td><strong>C101 Affiliated Meeting of Academy of Applied Myofunctional Sciences (AAMS)</strong></td>
<td>12:30pm - 6:00pm</td>
<td>I Club D</td>
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<tr>
<td><strong>C03 State of the field</strong></td>
<td>8:00am - 5:00pm</td>
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<tr>
<td><strong>C04 Modifying the upper airway for sleep apnea management</strong></td>
<td>8:00am - 4:30pm</td>
<td>I Club D</td>
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<tr>
<td><strong>C11 Restless legs syndrome</strong></td>
<td>8:00am - 12:00pm</td>
<td>I Club A</td>
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<tr>
<td><strong>C12 Pushing the envelope of sleep apnea medicine</strong></td>
<td>8:00am - 12:00pm</td>
<td>I Club C</td>
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<tr>
<td><strong>C13 Heart and sleep</strong></td>
<td>8:00am - 12:00pm</td>
<td>I Club B</td>
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<tr>
<td><strong>ISSTA 5th International Sleep Science and Medicine Expert Forum</strong></td>
<td>8:00am - 12:00pm</td>
<td>I Room 220</td>
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<tr>
<td><strong>T101 Technologist Program</strong></td>
<td>9:00am - 5:00pm</td>
<td>I Club H</td>
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<tr>
<td><strong>C14 Dental sleep medicine</strong></td>
<td>12:30pm - 4:30pm</td>
<td>I Club C</td>
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<tr>
<td><strong>C15 Sleep and neurodegeneration</strong></td>
<td>12:30pm - 4:30pm</td>
<td>I Club A</td>
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<tr>
<td><strong>C16 Sleep related movements: Standards for scoring, interpreting, reporting and publishing</strong></td>
<td>12:30pm - 4:30pm</td>
<td>I Club B</td>
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<tr>
<td><strong>Romanian Association for Pediatric Sleep Disorders: How early is too early for education in pediatric sleep - beyond the influence of light and circadian biology</strong></td>
<td>1:00pm – 2:30pm</td>
<td>I Room 220</td>
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<tr>
<td><strong>Opening Ceremony: Concert - Prague Orchestra</strong></td>
<td>6:00pm - 10:00pm</td>
<td>I Municipal House</td>
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<tr>
<td><strong>K01 The evolution of human sleep based on present-day hunter-gatherers</strong></td>
<td>8:00am - 9:00am</td>
<td>I Congress Hall</td>
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<tr>
<td><strong>S01 SERVE-HF and beyond</strong></td>
<td>9:00am - 10:30am</td>
<td>I Congress Hall</td>
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<td><strong>S02 Sleep and hypertension - causality and co-morbidities</strong></td>
<td>9:00am - 10:30am</td>
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<tr>
<td><strong>S03 Sleep and stress: A relationship lasting a lifetime</strong></td>
<td>9:00am - 10:30am</td>
<td>I Meeting Hall V</td>
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<tr>
<td><strong>S04 The importance of sleep in children around the world: Factors which affect outcomes</strong></td>
<td>9:00am - 10:30am</td>
<td>I North Hall</td>
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<td><strong>S05 Sleep and circadian factors in metabolic risk: A translational perspective</strong></td>
<td>9:00am - 10:30am</td>
<td>I Club A and B</td>
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<tr>
<td><strong>S06 Role of neuroimaging: Brain characteristics in sleep disorders</strong></td>
<td>9:00am - 10:30am</td>
<td>I Meeting Hall 1A</td>
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<tr>
<td><strong>S07 The role of genetic biomarkers in sleep medicine</strong></td>
<td>9:00am - 10:30am</td>
<td>I Meeting Hall 1B</td>
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<tr>
<td><strong>S08 Iron metabolism: Genetics, environment and restless legs syndrome (RLS)</strong></td>
<td>9:00am - 10:30am</td>
<td>I Club D and E</td>
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</tbody>
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S09 Physiological responses of oromaxillofacial anatomy in obstructive sleep apneics undergoing maxillomandibular advancement (MMA) 9:00am - 10:30am I Terrace 1
T01 Hands-on head wiring, with paediatric aspects of polysomnography 9:00am - 10:30am I Club H
K02 Central hypersonsomnias through the eyes of time 10:30am - 11:15am I Congress Hall
S10 REM-sleep and depression: Research into clinically meaningful biomarkers 10:30am - 12:00pm I Meeting Hall IV
S11 The role of nocturnal eating on insomnia, diurnal sleepiness and obesity 10:30am - 12:00pm I Meeting Hall V
S12 The interplay between sleep and academic performance: From neural mechanisms to educational policy 10:30am - 12:00pm I North Hall
S13 OSA and atherogenesis: Reversible or not? 10:30am - 12:00pm I Club A and B
S15 Local sleep and local wake: From basic science to sleep arousal disorders 10:30am - 12:00pm I Meeting Hall 1B
S16 Nasal obstruction and its role in sleep disordered breathing 10:30am - 12:00pm I Terrace 1
O01 Sleep breathing disorders oral abstract presentations 10:30am – 12:00pm I Club D and E
O02 Insomnia oral abstract presentations 10:30am – 12:00pm I Club H
K03 Racial difference in sleep disorders 11:15am - 12:00pm I Congress Hall
Poster Abstracts 1 12:00pm - 12:30pm I Panorama Hall
TEVA Industry Satellite Symposium: Challenges of recognizing and treating excessive sleepiness 12:30pm - 2:00pm I Congress Hall
Merck Industry Satellite Symposium: New approaches to personalizing treatment of insomnia: Why and how? 12:30pm - 2:00pm I Meeting Hall IV
Philips Industry Satellite Symposium: Boosting slow wave sleep to improve cognitive outcomes 12:30pm - 2:00pm I North Hall
World Sleep Day Networking Event 1:00pm I Room 201
S17 New evidence on the treatment of insomnia comorbid with depression, pain, sleep apnea or circadian disorders 2:00pm - 3:30pm I Congress Hall
S18 Beyond academic walls: Society education as an essential field in sleep science 2:00pm - 3:30pm I Meeting Hall IV
S19 Sleep disorders in the adolescent population: The missing link 2:00pm - 3:30pm I North Hall
S20 Advances in obstructive sleep apnea pathogenesis and non-CPAP therapies 2:00pm - 3:30pm I Club A and B
S21 European Narcolepsy Network (EU-NN) - Narcolepsy: From etiology to treatment 2:00pm - 3:30pm I Meeting Hall 1A
S22 The waking, sleeping and dreaming brain: New circuits and insights 2:00pm - 3:30pm I Meeting Hall 1B
S23 In search of alternatives to dopaminergic ligands in RLSWED: The emerging role of glutamate and adenosine 2:00pm - 3:30pm I Club D and E
S24 Personalization of mandibular advancement devices: Digital analysis of the movements achieved and mathematical model for the study of the jaw Kinematics. 2:00pm - 3:30pm I Terrace 1
O03 Sleep breathing disorders oral abstract presentations 2:00pm – 3:30pm I Meeting Hall V
T02 Cardiopulmonary resuscitation for sleep technologists part 1 2:00pm - 3:30pm I Club H
K04 Dental Sleep Medicine 3:30pm - 4:15pm I Congress Hall
S25 Measuring quality in the delivery of sleep medicine: Metrics and patient reported outcomes 3:30pm - 5:00pm I Meeting Hall IV
S26 Factors in night and rotating shift work associated with poor sleep and health 3:30pm - 5:00pm I Meeting Hall V

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S27 Functioning of the restless legs syndrome (RLS) brain: Excitability and control
3:30pm - 5:00pm I North Hall

S28 Arousability and loop gain: The factors that bridge insomnia and sleep-disordered breathing
3:30pm - 5:00pm I Club A and B

S29 New developments in narcolepsy diagnosis, research and therapeutics
3:30pm - 5:00pm I Meeting Hall 1A

S30 Behavioral and neurophysiological influences of waking system on sleep
3:30pm - 5:00pm I Meeting Hall 1B

O04 Neurological sleep disorders affecting sleep oral abstract presentations
3:30pm – 5:00pm I Club D and E

O05 Psychiatric disorders affecting sleep/wake oral abstract presentations
3:30pm – 5:00pm I Terrace 1

O06 Neural plasticity, memory, parasomnia and pharmacology oral abstract presentations
3:30pm – 5:00pm I Club H

K05 History of pediatric sleep and the contribution of sleep microstructure
4:15pm - 5:00pm I Congress Hall

Poster Abstracts 2
5:00pm - 5:30pm I Panorama Hall

S31 Parasomnias: Recent advances in etiology, assessment and treatment
5:30pm - 7:00pm I Congress Hall

S32 Novel treatments for age-related sleep disruption
5:30pm - 7:00pm I Meeting Hall IV

S34 Pediatric OSA: Diagnostic and treatments involving a multidisciplinary team
5:30pm - 7:00pm I North Hall

S35 Minimally invasive implantable approaches for OSA
5:30pm - 7:00pm I Club A and B

S36 Understanding the potential role for Mn in RLS etiology using novel human and animal models
5:30pm - 7:00pm I Meeting Hall 1A

S37 Basic research & new treatment approaches in sleep related breathing disorders
5:30pm - 7:00pm I Meeting Hall 1B

S38 Young Investigator: Sleep research in neurodegeneration
5:30pm - 7:00pm I Club D and E

S39 Obstructive sleep apnea severity and the role of oral appliances
5:30pm - 7:00pm I Terrace 1

O07 Narcolepsy Oral Abstract Presentations
5:30pm – 7:00pm I Meeting Hall V

T03 Cardiopulmonary resuscitation for sleep technologists part 2
5:30pm - 7:00pm I Club H

Gala Dinner
7:30pm - 10:30 pm I Slovansky durn (Slavic House)

K06 Sleep and Synaptic homeostasis
8:15am - 9:00am I Congress Hall

S41 Sleep and sex: What can go wrong?
9:00am - 10:30am I Meeting Hall IV

S42 Sleep dependent brain oscillations as early markers of neurodegeneration
9:00am - 10:30am I Meeting Hall V

S43 Sleep related learning and behavioural functioning in children with developmental disorders
9:00am - 10:30am I North Hall

S44 Myofunctional therapy as an adjunct treatment for sleep disordered breathing: Validation of screening tools and objective measurements of progress for an emerging standard of care
9:00am - 10:30am I Club A and B

S46 New approaches to studies of genetics of sleep and its disorders
9:00am - 10:30am I Meeting Hall 1B

S47 Insomnia phenotypes: Identification and treatment response
9:00am - 10:30am I Club D and E

S48 NON-PAP treatment of obstructive-sleep-apnea in late teen-agers and early adulthood: What can be done, orthodontia and surgery?
9:00am - 10:30am I Terrace 1
Tuesday

### Poster Abstracts 3
10:30am – 12:00pm I Club A and B

### Cataplexy: From fundamentals to the clinic
12:30pm - 1:15pm I Congress Hall

### Evolution of sleep medicine – Challenging the status quo
2:00pm - 3:30pm I Meeting Hall V

### Member Meetings of WASM and WSS
2:00pm - 3:30pm I Club A and B

### Multiple sclerosis, sleep and sleep disorders
2:00pm - 3:30pm I North Hall

### OSA, Upper-airway surgery and MAD: Techniques to select location, surgical techniques to be used, personalization of mandibular-advancement-device
2:00pm - 3:30pm I Terrace 1

### Restless legs syndrome (RLS/WED) oral abstract presentations
2:00pm - 3:30pm I Club D and E

### Understanding the pathophysiology of RBD and REM sleep
2:00pm - 3:30pm I Meeting Hall IV

### Sleep-related hypermotor epilepsy (SHE): From the basic mechanisms to the differential diagnosis
2:00pm - 3:30pm I Meeting Hall V

### Deficient sleep in children and adolescents: Generating solutions for a global epidemic
3:30pm - 5:00pm I North Hall

### Group scoring discussion: Respiratory related breathing disorders
9:00am - 10:30am I Club H

### Sleep: From single neuron to behavior
10:30am - 11:15am I Congress Hall

### Daytime sleepiness: Newest research results & experts' opinions
10:30am - 12:00pm I Meeting Hall IV

### Diagnosis, morbidity and treatment of pediatric OSA: What's new?
10:30am - 12:00pm I North Hall

### Dynamic circuit connecting the circadian clock and sleep/wakefulness
10:30am - 12:00pm I Club A and B

### How the reticular activating system (RAS) modulates perception and movement
10:30am - 12:00pm I Meeting Hall 1A

### Menopause matters: Hormones, hot flashes and sleep disorders
10:30am - 12:00pm I Meeting Hall 1B

### OSA treatment in adult [men and women] non compliant with nasal PAP, indication and potential treatment: surgical approaches and nerve implantation
10:30am - 12:00pm I Terrace 1

### REM behavior disorders oral abstract presentations
10:30am – 12:00pm I Club D and E

### Sleep breathing disorders oral abstract presentations
10:30am – 12:00pm I Club H

### Restless legs syndrome: Towards a new concept of the disease
11:15am - 12:00pm I Congress Hall

### Diagnosis, morbidity and treatment of pediatric OSA: What's new?
10:30am - 12:00pm I Club A and B

### Idiopathic hypersomnia: A neglected disorder
2:00pm - 3:30pm I Club A and B

### What can we learn from recent large negative clinical trials in sleep-disordered breathing?
2:00pm - 3:30pm I Congress Hall

### Ascertaining of RBD and its clinical implications for neurodegeneration
2:00pm - 3:30pm I Meeting Hall IV

### Environmental challenges: The impact of artificial light on sleep and circadian biology
2:00pm - 3:30pm I Meeting Hall V

### Developmental aspects of sleep's influence on memory and general cognitive abilities
2:00pm - 3:30pm I North Hall

### Sleep loss and socio-emotional functioning
2:00pm - 3:30pm I Club A and B

### Idiopathic hypersomnia: A neglected disorder
2:00pm - 3:30pm I Meeting Hall 1A

### Sleep slow waves: From cells to consciousness
2:00pm - 3:30pm I Meeting Hall 1B

### OSA, Upper-airway surgery and MAD: Techniques to select location, surgical techniques to be used, personalization of mandibular-advancement-device
2:00pm - 3:30pm I Terrace 1

### REM behavior disorders oral abstract presentations
2:00pm – 3:30pm I Club D and E

### Breathing Re-Education to achieve nasal and normal minute volume for sleep
2:00pm - 3:30pm I Club H

### Chronic insomnia and the immune response
3:30pm - 4:15pm I Congress Hall

### Understanding the pathophysiology of RBD and REM sleep
3:30pm - 5:00pm I Meeting Hall IV

### Sleep-related hypermotor epilepsy (SHE): From the basic mechanisms to the differential diagnosis
3:30pm - 5:00pm I Meeting Hall V

### Deficient sleep in children and adolescents: Generating solutions for a global epidemic
3:30pm - 5:00pm I North Hall
S67 Respiratory muscle function and intervention of upper airway in patients with sleep disordered breathing 3:30pm - 5:00pm I Club A and B
S68 Sleep disorders in post-menopausal women: The impact on health 3:30pm - 5:00pm I Meeting Hall 1A
S69 Effects of sleep deprivation: Novel agents and mechanisms 3:30pm - 5:00pm I Meeting Hall 1B
O11 Sleep breathing disorders oral abstract presentations 3:30pm – 5:00pm I Club D and E
O12 Behavior, cognition and dreaming and neurological sleep disorders affecting sleep oral abstract presentations 3:30pm – 5:00pm I Terrace 1
O13 Basic research oral abstract presentations 3:30pm – 5:00pm I Club H
K10 Treating sleep and circadian problems: A transdiagnostic approach 4:15pm - 5:00pm I Congress Hall
Poster Abstracts 4 5:00pm - 5:30pm I Panorama Hall
S71 Sleep, clocks and neurodegeneration 5:30pm - 7:00pm I Meeting Hall IV
S72 The duality of sleep movement 5:30pm - 7:00pm I Meeting Hall V
S73 Practical aspect of pediatric sleep medicine 5:30pm - 7:00pm I North Hall
S74 Extracting sleep breathing phenotypes from lab and home data 5:30pm - 7:00pm I Club A and B
S75 Sleep and mental health in a changing society 5:30pm - 7:00pm I Meeting Hall 1A
S76 Sleep, slow waves and brain temperature: Insights from hibernators 5:30pm - 7:00pm I Meeting Hall 1B
S77 Young Investigator: Sleep research in respiratory sleep medicine 5:30pm - 7:00pm I Club D and E
O14 Aging and excessive daytime sleepiness oral abstract presentations 5:30pm – 7:00pm I Terrace 1
T06 The 3 C’s: Credentialing, Certification, CECs 5:30pm - 7:00pm I Club H
RS1 Society Symposium ASRS and IASSA: Sleep medicine in Asia: Across the discipline 7:00pm - 9:00pm I Meeting Hall IV
RS2 Society Symposium ASA: Biomarkers for sleep disordered breathing: Clinical, physiological, neurocognitive and genetic 7:00pm - 9:00pm I Terrace 1
RS3 Society Symposium ESRS and WSS: Sleepiness and accidents 7:00pm - 9:00pm I North Hall
RS4 Society Symposium SRS: Circadian rhythm sleep-wake disorders: Looking to the future 7:00pm - 9:00pm I Meeting Hall V
K11 H1N1, seasonality and childhood narcolepsy 8:00am - 9:00am I Congress Hall
S78 Sleep at high altitude 9:00am - 10:30am I Meeting Hall IV
S79 Cerebral networks during sleep and after sleep deprivation 9:00am - 10:30am I Meeting Hall V
S80 Sleep during early stage of life affects long-term outcomes 9:00am - 10:30am I North Hall
S81 Sleep, brain-heart relationships and sudden death risk 9:00am - 10:30am I Club A and B
S82 Animal models for restless legs syndrome: New developments and future challenges 9:00am - 10:30am I Club D and E
T07 Group scoring discussion: PLMD 9:00am - 10:30am I Room 221
K12 Parasomnias: A window into dream 9:45am - 10:30am I Congress Hall
K13 Sleep restriction in adolescents: Cognitive effects and remedies 10:30am - 11:15am I Congress Hall
S83 The relationship between sleep, pain and fatigue following traumatic brain injury: From bench to bedside 10:30am - 12:00pm I Meeting Hall IV
S84 Cortical nNOS neurons: A nexus between homeostatic sleep drive and EEG slow wave activity? 10:30am - 12:00pm I Meeting Hall V
S85 Suicide, sleep and circadian rhythms in adolescents 10:30am - 12:00pm I North Hall
S86 Vitamin D and sleep 10:30am - 12:00pm I Club A and B
O15 Chronobiology/circadian disorders oral abstract presentations 10:30am – 12:00pm I Club D and E
### Wednesday

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<tr>
<th>Session</th>
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<tr>
<td><strong>O16 Sleep breathing disorders oral abstract presentations</strong></td>
<td>10:30am – 12:00pm</td>
<td>Terrace 1</td>
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<tr>
<td><strong>O17 Sleep health and other Issues oral abstract presentations</strong></td>
<td>10:30am – 12:00pm</td>
<td>Club H</td>
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<tr>
<td><strong>K14 Circadian rhythm sleep disorders: Challenges in diagnosis and treatment</strong></td>
<td>11:15am - 12:00pm</td>
<td>Congress Hall</td>
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<tr>
<td><strong>Poster Abstracts 5</strong></td>
<td>12:00pm - 12:30pm</td>
<td>Panorama Hall</td>
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<tr>
<td><strong>K15 Control of sleep-related breathing</strong></td>
<td>12:30pm - 1:15pm</td>
<td>Congress Hall</td>
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<tr>
<td><strong>K16 Cardiovascular risk, OSA and CPAP (SAVE study)</strong></td>
<td>1:15pm - 2:00pm</td>
<td>Congress Hall</td>
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<tr>
<td><strong>S87 Phenotyping and genotyping sleep apnea</strong></td>
<td>2:00pm - 3:00pm</td>
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<tr>
<td><strong>S88 Novel biomarkers for sleep insufficiency and sleep disorders</strong></td>
<td>2:00pm - 3:00pm</td>
<td>Meeting Hall IV</td>
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<tr>
<td><strong>S89 Restless legs syndrome, augmentation and dopamine treatment - clinical data and emerging new models</strong></td>
<td>2:00pm - 3:00pm</td>
<td>Meeting Hall V</td>
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<tr>
<td><strong>S90 Sleep across cultures in young children from around the world</strong></td>
<td>2:00pm - 3:00pm</td>
<td>North Hall</td>
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<tr>
<td><strong>S91 Improving insomnia treatments: Less pain, more gain?</strong></td>
<td>2:00pm - 3:00pm</td>
<td>Club D and E</td>
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<tr>
<td><strong>O18 Technology and technical oral abstract presentations</strong></td>
<td>2:00pm – 3:00pm</td>
<td>Club A and B</td>
</tr>
<tr>
<td><strong>O19 Sleep breathing disorders oral abstract presentations</strong></td>
<td>2:00pm – 3:00pm</td>
<td>Terrace 1</td>
</tr>
<tr>
<td><strong>T08 Oximetry interpretation</strong></td>
<td>2:00pm - 3:00pm</td>
<td>Club H</td>
</tr>
<tr>
<td><strong>S92 Creating a framework for analyses of movement patterns of challenging/disruptive sleep and wake behaviours</strong></td>
<td>3:30pm - 5:00pm</td>
<td>Congress Hall</td>
</tr>
<tr>
<td><strong>S93 Infra-slow (&lt; 0.1 Hz) oscillations: from the cell to the clinic</strong></td>
<td>3:30pm - 5:00pm</td>
<td>Meeting Hall IV</td>
</tr>
<tr>
<td><strong>S94 Circadian rhythm sleep-wake disorders and insomnia: What are the consequences and how do we optimize treatment?</strong></td>
<td>9:00am - 10:30am</td>
<td>Terrace 1</td>
</tr>
<tr>
<td><strong>S95 Hypertrophic cardiomyopathy and sleep disordered breathing: Implications for atrial arrhythmias and sudden cardiac death</strong></td>
<td>3:30pm - 5:00pm</td>
<td>North Hall</td>
</tr>
<tr>
<td><strong>S96 Autonomic disorders in sleep medicine</strong></td>
<td>3:30pm - 5:00pm</td>
<td>Club A and B</td>
</tr>
<tr>
<td><strong>S33 Sleep and the kidney</strong></td>
<td>3:30pm - 5:00pm</td>
<td>Club H</td>
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<tr>
<td><strong>O20 Basic research oral abstract presentations</strong></td>
<td>3:30pm – 5:00pm</td>
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<tr>
<td><strong>O21 Insomnia oral abstract presentations</strong></td>
<td>3:30pm – 5:00pm</td>
<td>Meeting Hall V</td>
</tr>
<tr>
<td><strong>O22 Restless legs syndrome (RLS/WED) and movement disorders oral abstract presentations</strong></td>
<td>3:30pm – 5:00pm</td>
<td>Terrace 1</td>
</tr>
<tr>
<td><strong>Poster Abstracts 6</strong></td>
<td>5:00pm - 5:30pm</td>
<td>Panorama Hall</td>
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<tr>
<td><strong>S97 Sleep and sexual dysfunction</strong></td>
<td>5:00pm – 7:00pm</td>
<td>Meeting Hall V</td>
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<tr>
<td><strong>S99 Young Investigator: Oral presentation</strong></td>
<td>5:30pm - 7:00pm</td>
<td>Club D and E</td>
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<tr>
<td><strong>S98: Sleep and interventions in children and young people with autism spectrum disorder</strong></td>
<td>5:30pm - 7:00pm</td>
<td>North Hall</td>
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<tr>
<td><strong>S100 The characteristics of type 2 narcolepsy in Asian patients</strong></td>
<td>5:30pm - 7:00pm</td>
<td>Congress Hall</td>
</tr>
<tr>
<td><strong>O23 Sleep breathing disorders and research oral abstract presentations</strong></td>
<td>5:30pm – 7:00pm</td>
<td>Terrace 1</td>
</tr>
<tr>
<td><strong>T09 Experiences in sleep medicine around the world</strong></td>
<td>5:30pm - 7:00pm</td>
<td>Club H</td>
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<tr>
<td><strong>Closing Ceremony</strong></td>
<td>7:00pm - 7:30pm</td>
<td>Congress Hall</td>
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</tbody>
</table>

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## Prague Metro Pass

All attendees of World Sleep 2017 will receive a complimentary Metro & Bus Pass for any public transportation between the dates of October 7-11, 2017.

**Passes are included in your delegate bag.**

View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
Prague Congress Centre

Ground Level
Registration Desk
Coat Check

First Floor
Congress Hall – Keynote
Club AB – Breakout Sessions
Club DE – Breakout Sessions
Club H – Breakout Sessions
Panorama Hall – Abstract Posters
Meeting Hall IA – Breakout Sessions
Meeting Hall IB – Breakout Sessions

Second Floor
Exhibit Hall
Congress Hall – Keynote
Room 220 – Executive Office
Room 221 – Board Room
Room 2.1 – Speaker Ready Room
North Hall – Breakout Sessions
Meeting Hall IV – Breakout Sessions
Meeting Hall V - Breakout Sessions
Terrace 1 - Breakout Sessions

View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
Scientific Content

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Courses I Affiliate Meetings

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Symposia I Oral Abstracts I Technologist Sessions I Poster Presentations

View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
14th Czech-Slovak and 19th Congress of the Czech Society for Sleep Research and Sleep Medicine
8:00am - 5:00pm I Meeting Hall 1A & 1B

8:00am - 9:00am
Registration

9:00am - 10:30am
World Sleep - Czech Sleep Society Symposium

The significance of periodic and non-periodic limb movements during
L. Ferini-Strambi (Italy)

Actigraphy and periodic limb movements
D. Kemlink (Czech Republic)

Idiopathic REM sleep behavior in Parkinson disease?
A. Iranzo (Spain)

Rhythmic movement disorder
I. Příhodová (Czech Republic)

Sleep in neurological diseases
11:00am - 12:00pm
Sleep disordered breathing and cardio-metabolic diseases
1:00pm - 2:00pm
Lunch
2:00pm - 4:00pm
Diagnosis and treatment of sleep disordered breathing
4:00pm - 5:00pm
Plenary meeting of the Czech Sleep Society
5:30pm - 6:30pm
Industry sponsored symposium
8:00pm - 11:00pm
Dinner

C01 Pediatric sleep medicine
8:00am - 5:00pm I Club E

Chairs:
D. Gozal (United States), O. Bruni (Italy), R. Silvestri (Italy)

8:00am - 8:20am
Introduction
R. Silvestri (Italy)

8:20am - 9:00am
Insomnia: Clinical and diagnostic aspects
O. Bruni (Italy)

9:00am - 9:30am
Comorbidity of insomnia
J. Owens (United States)

9:30am - 10:00am
The effects of media on sleep in pediatric age
J. Van den Bulck (The Netherlands)

10:00am - 10:20am
Coffee break

10:20am - 11:00am
Pediatric sleep apnea: Clinical and diagnostic aspects
D. Gozal (United States)

11:00am - 11:30am
Morbidity of OSA in children
L. Kheirandish-Gozal (United States)

11:30am - 12:00pm
T&A and beyond
H.-L. Tan (United Kingdom)

12:00pm - 12:30pm
Group discussion

12:30pm - 1:30pm
Lunch

1:30pm - 2:10pm
Narcolepsy and REM related parasomnia
M. Lecendreux (France)

2:10pm - 2:50pm
Disorders of arousal and nocturnal epileptic seizures
L. Nobili (Italy)

2:50pm - 3:30pm
PLMD-RLS: diagnosis, clinical aspects and therapy
R. Silvestri (Italy)

3:30pm - 3:50pm
Coffee break

3:50pm - 4:20pm
Rhythmic movement disorder, bruxism, enuresis
I. Příhodová (Czech Republic)

4:20pm - 4:50pm
Sleep in neurodevelopmental disorders
S. Miano (Italy)

4:50pm - 5:00pm
Question and answer

C02 Insomnia therapeutics
8:00am - 5:00pm I Club A

Chairs:
C. Espie (United Kingdom), C. Morin (Canada)

8:00am - 8:15am
Introduction
C. Espie (United Kingdom), C. Morin (Canada)

8:15am - 9:00am
The contemporary evidence base and current clinical guidelines for the treatment of insomnia disorder
D. Riemann (Germany)

9:00am - 9:45am
Selecting and using pharmacotherapy for insomnia: An everyday clinical practice update
R. Benca (United States)

9:45am - 10:15am
Coffee break
10:15am - 11:00am
Applications of CBT for insomnia in medical populations: The example of cancer
J. Savard (Canada)

11:00am - 11:45am
Rational combination of CBT and PCT in insomnia management
C. Morin (Canada)

11:45am - 12:30pm
Incorporating light therapy into the treatment of insomnia
B. Bjorvatn (Norway)

12:30pm - 1:30pm
Lunch

1:30pm - 2:15pm
'Third wave' psychological therapies (e.g. mindfulness) and their role in the management of insomnia
M.R. Irwin (United States)

2:15pm - 3:00pm
Digital medicine for insomnia: the potential of technology in the management of insomnia
C. Espie (United Kingdom)

3:00pm - 3:15pm
Coffee Break

3:15pm - 4:00pm
Novel and emerging behavioural therapeutics for insomnia
S.D. Kyle (United Kingdom)

4:00pm - 5:00pm
Discussion panel

C100 International RLS Study Group: RLS is not just leg kicking
8:00am - 5:30pm I Club H

Chairs:
D. Garcia-Borreguero (Spain)

8:00am - 8:10pm
Welcome to IRLSSG in Prague
K. Sonka (Czech Republic)

8:10am - 8:30am
Obesity and RLS
X. Gao (United States)

8:30am - 8:50am
RLS severity and BMI
F. Provini (Italy)

8:50am - 9:10am
RLS and BMI in stroke patients
M. Manconi (Switzerland)

9:10am - 9:30am
Cerebral hemodynamic disturbances in RLS with PLMs
K.Y. Jung (Republic of Korea)

9:30am - 9:50am
Resting state and thalamic role in RLS
Y.W. Cho (Republic of Korea)

9:50am - 10:20am
Coffee Break

10:20am - 10:40am
Sleep related leg movements: Beyond PLM
R. Allen (United States)

10:40am - 11:00am
Beyond PLMS: The neurophysiology of short-interval leg movements during sleep
R. Ferri (Italy)

11:00am - 11:20am
Periodic vs. respiratory related leg movements
S. Fulda (Switzerland)

11:20am - 11:40am
PLMS mimicking RBD
A. Iranzo (Spain)

Wayne Hening Award Abstract presentations
11:40am - 11:50am
Circadian locomotor activity in Meis1 knock-out mice
A. Salminen (Germany)

11:50am - 12:00pm
Validation of an automatic scoring algorithm for the analysis of periodic limb movements according to the WASM2016 guidelines
D. Alvarez-Estevez (The Netherlands)

12:00pm - 12:10pm
Association of BTBD9 and MAP2K5/SKOR1 With Restless Legs Syndrome in Chinese Population
G. Li (China)

12:10pm - 12:20pm
Plantar reflex excitability fluctuations in Restless legs syndrome patients
S. Kerr (South Africa)

12:20pm - 12:30pm
Prevalence and associated factors of restless legs syndrome and periodic limb movement in EPISONO cohort
L. Kim (Brazil)

12:30pm - 1:30pm
Lunch break

1:30pm - 1:50pm
Actigraphy and PLMS
D. Kemlink (Czech Republic)

1:50pm - 2:10pm
Ped RLS TF report
A. Walters (United States)

2:10pm - 3:10pm
Opiates vs. alpha 2 delta in RLS
F. Sixel-Döring (Germany), D. Garcia-Borreguero (Spain)

3:10pm - 3:40pm
Coffee Break

3:40pm - 3:50pm
International projects – our experience
J. Winkelmann (Germany), A. Walters (United States)

3:50pm - 4:30pm
International projects – networking for science group session
D. Garcia-Borreguero (Spain)

4:30pm - 5:30pm
IRLSSG business meeting
D. Garcia-Borreguero (Spain)
C05 Technology and effective business models in sleep medicine
8:00am - 12:00pm I Club C

Chairs:
N. Ramakrishnan (India), M. Bianchi (United States)

8:00am - 8:10am 
Introduction
M. Bianchi (United States), N. Ramakrishnan (India)

8:10am - 8:50am 
Technology in diagnostic and therapeutic devices in OSA: Where to from here?
W. Randerath (Germany)

8:50am - 9:30am 
Value based sleep: What is it, why it matters and how to maximize it?
E. Wickwire (United States)

9:30am - 9:50am 
Coffee break

9:50am - 10:30am 
Telemedicine to diagnose and manage sleep disorders
J. Teran-Santos (Spain)

10:30am - 11:10am 
Turning your clinical sleep lab into a big-data enterprise
M. Bianchi (United States)

11:10am - 11:50am 
Novel methods of teaching and training: The business of sleep education
R. Grunstein (Australia)

11:50am - 12:00pm 
Question and answer
N. Ramakrishnan (India), M. Bianchi (United States)

C06 Biology and pharmacology of sleep
8:00am - 12:00pm I Club B

Chairs:
T. Roth (United States), P. Shiromani (United States), T. Kilduff (United States), S. Veasey (United States)

8:00am - 8:05am 
Introduction: Summary of panel and objectives
P. Shiromani (United States)

8:05am - 8:45am 
Brain circuits regulating sleep-wake states
P. Shiromani (United States)

8:45am - 9:40am 
Molecular targets for sleep/wake pharmaceuticals
T. Kilduff (United States)

9:40am - 10:00am 
Coffee break

10:00am - 10:55am 
Pharmacological treatment of sleep disorders
T. Roth (United States)

10:55am - 11:50am 
Lasting effects of chronic short sleep on brain health and aging
S. Veasey (United States)

11:50am - 12:00pm 
Panel discussion

C07 Circadian medicine
8:00am - 12:00pm I Club D

Chairs:
P. Zee (United States), A. Sumova (Czech Republic), D. Skene (Switzerland)

8:00am - 8:10am 
Introduction
P. Zee (United States)

8:10am - 8:40am 
Human circadian rhythms and entrainment
T. Roenneberg (Germany)

8:40am - 9:10am 
Clocks, melatonin and diabetes
J. Johnston (United Kingdom)

9:10am - 9:40am 
Clocks, metabolism and cardiovascular regulation
K. Wright (United States)

9:40am - 10:10am 
Coffee Break

10:10am - 10:40am 
Clocks and mental health
C. McClung (United States)

10:40am - 11:10am 
Clocks and immunity
P. Zee (United States)

11:10am - 11:50am 
Challenges in clinical diagnosis and treatment of CRSWSD
P. Zee (United States), S. Abbott (United States)

11:50am - 12:00pm 
Question and answer

C08 Ambulatory sleep medicine
1:00pm – 5:00pm I Club C

Chairs:
S. Keenan (United States)

This course will cover the gathering of data outside the sleep lab, across medical and consumer devices and telemedicine, including data from therapy devices. The future and ongoing development of sleep medicine in the world lies in the power of our tools and the management of data. The focus will be on how to best use (and not use) technology, with an aim for greatest impact on society. What if we had the tools we needed to shift the paradigm? How can we empower individuals to optimize their sleep and achieve optimal health? How can we maximize efficiency of sleep health care delivery and maintain the highest standards of patient care? Please join us and be part of the discussion.

C09 Sleep stages scoring and apnea scoring using computer lab equipment
1:00pm - 5:00pm I Room 221

Chairs:
T. Penzel (Germany)

View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
1:00pm - 1:10pm
Introduction
T. Penzel (Germany)

1:10pm - 1:50pm
Recommended & alternative sensors in PSG
A. Obeidat (United States)
1:50pm - 2:30pm
AASM guidelines for scoring sleep stages in adults
A. Obeidat (United States)
2:30pm - 2:50
Coffee break
2:50pm - 3:30pm
AASM guidelines for scoring respiratory events in adults
A. Obeidat (United States)
3:30pm - 4:10pm
AASM guidelines for motor related events in adults
A. Obeidat (United States)
4:10pm - 4:50pm
Group scoring
A. Obeidat (United States)
4:50pm - 5:00pm
Question and answer
A. Obeidat (United States)

C10 Differential diagnosis of sleep disorders: Video seminar of different sleep disorders and review of treatment options
1:00pm - 5:00pm | Club B

Chairs:
B. Högl (Austria), A. Iranzo (Spain)
1:00pm - 1:10pm
Introduction
B. Högl (Austria)
1:10pm - 1:50pm
Differential diagnosis of narcolepsy and cataplexy
A. Iranzo (Spain)
1:50pm - 2:30pm
Differential diagnosis on sleep apnea
W. Randerath (Germany)
2:30pm - 2:50pm
Coffee break
2:50pm - 3:30pm
Differential diagnosis on restless legs syndrome and periodic limb movements in sleep
B. Högl (Austria)
3:30pm - 4:10pm
Differential diagnosis of REM behavior sleep disorder
A. Stefani (Austria)
4:10pm - 4:50pm
Differential diagnosis of the NREM parasomnias
L. Nobili (Italy)
4:50pm - 5:00pm
Question and answer
A. Iranzo (Spain)
7:00pm - 9:00pm
Dinner

C101 AAMS: Myofunctional therapy in modification of the upper airway in OSA
12:30pm - 6:00pm | Club D

Chairs:
C. Guilleminault (United States), M. Moeller (United States)
12:30pm – 12:45pm
Opening remarks: Myofunctional therapy and sleep disordered breathing
C. Guilleminault (United States)
12:45pm – 1:05pm
A survey of myofunctional therapy and sleep disorders
M. Moeller (United States)
1:05pm – 1:30pm
Targeting the pharyngeal muscles to treat OSA: A phenotyping perspective
D. Eckert (Australia)
1:30pm – 1:55pm
Patients’ perspectives on myofunctional therapy and OSA: A call for action
J. Moeller (United States)
1:55pm – 2:20pm
Pathways to update standards of care: How myofunctional therapy works in OSA
E. Bianchini (Brazil)
2:20pm – 2:45pm
AAMS - Interdisciplinary approaches in the treatment of orofacial myofunctional anomalies in sleep
H. Vaheer (Estonia), T. Jagomagi (Estonia)
2:45pm – 3:10pm
From emerging adjunct treatment to 1st line treatment: The OMT journey for OSAS in Italy
M.P. Villa (Italy)
3:10pm – 3:25pm
Break
3:25pm – 3:50pm
From reconstruction to re-education: The evolution of a sleep surgery protocol with DOME, MMA, hypoglossal nerve stimulation, and myofunctional therapy
S. Liu (United States)
3:50pm – 4:15pm
A missing link in OSA pathogenesis: Low tongue posture as a phenotype in OSA
A. Yoon (United States)
4:15pm – 4:40pm
Rapid return function after MMA: OMT, recovery & QOL
Y.-F. Chen (United States)
4:40pm – 5:05pm
The impact of orofacial myofunctional therapy in the upper airway: Wake and sleep
D.K.-K. Ng (Hong Kong)
5:05pm – 5:30pm
From the needles of dionysius: Evolution in the treatment of sleep apnea
M. Kryger (United States)
5:30pm – 6:00pm
Panel discussion
Learn about sleep disorders through Oxford’s Online Programme in Sleep Medicine

www.ndcn.ox.ac.uk/oxford-online-programme-sleep-medicine

- Leads to an MSc/PGDip
- Two-year part-time programme
- Hosted by world-leading Sleep & Circadian Neuroscience Institute
- Includes modules on insomnia, circadian rhythm disruption and sleep-related breathing disorders
- Teaching delivered online and via a summer school in Oxford
- Standalone modules can also be completed as part of CPD
C03 State of the field
8:00am - 5:00pm | Club E

Chairs:
A. Pack (United States), R.J. Thomas (United States)

8:00am - 8:05am
Introduction
R.J. Thomas (United States)

8:05am - 8:40am
Genetic approaches to sleep science
E. Mignot (United States)

8:40am - 9:20am
Mapping and biology of sleep neurocircuitry
A. Adamantidis (Switzerland)

9:20am - 10:00am
Homeostatic mechanisms in sleep regulation
V. Vyazovskiy (United Kingdom)

10:00am - 10:15am
Coffee break

10:15am - 10:45am
Sleep apnea: New concepts, mechanisms, and therapies
A. Pack (United States)

10:45am - 11:15am
Sleep pathology as an oncogenetic factor
D. Gozal (United States)

11:15am - 11:45am
Wearable devices and sleep science/practice
R.J. Thomas (United States)

11:45am - 12:00am
Question and answer
R.J. Thomas (United States)

12:00pm - 12:45pm
Lunch

12:45pm - 1:15pm
Surgical approaches to sleep apnea: 2017 update
J. Suri (India)

1:15pm - 1:45pm
Mechanisms and management of insomnia
C. Morin (Canada)

1:45pm - 2:15pm
Current concepts and management of hypersomnia
D. Rye (United States)

2:15pm - 2:45pm
Neurodegeneration and sleep: Bidirectional engagement
E. Musiek (United States)

2:45pm - 3:00pm
Coffee break

3:00pm - 3:45pm
Translational circadian science
K. Wright (United States)

3:45pm - 4:15pm
Oral appliance therapy
P. Cistulli (Australia)

4:15pm - 4:45pm
Sleep and brain disorders
C. Bassetti (Switzerland)

4:45pm - 5:00pm
Question and answer
A. Pack (United States)

C04 Modifying the upper airway for sleep apnea management
8:00am - 4:30pm | Club D

Chairs:
C. Guilleminault (United States)

8:00am - 8:20am
Introduction: Importance of UA for OSA
C. Guilleminault (United States)

8:20am - 9:10am
The nose and SDB-50
C. Torre (United States)

9:10am - 10:00am
The role of pharyngeal anatomy and airway collapsibility in the pathogenesis of OSA
A. Schwartz (United States)

10:00am - 10:20am
Coffee break

10:20am - 11:10am
Evaluation of the upper-airway: Different approaches and comparison of results
C.C.-H. Lin (Taiwan)

11:10am - 12:05pm
Surgical techniques for palatal and pharyngeal obstruction: Advantages, disadvantages, complications, and long term follow-up
P. Baptista (Spain)

12:05pm - 12:35pm
Lunch

12:35pm - 1:25pm
Maxillo-Mandibular Advancement surgery: Indication, technique, followup, complications
J. Cifuentes (Chile)

1:25 - 2:15
OSA, glossectomy and usage of robot
S.-T. Toh (Singapore)

2:15pm - 2:35pm
Coffee break

2:35pm - 3:25pm
Distraction Osteogenesis Maxillary Expansion in young adult: Indication and results
S. Liu (United States)

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3:25pm - 4:15pm
XII nerve stimulation surgical approach, challenges and long term followup
N. de Vries (The Netherlands)

4:15pm - 4:30pm
Question and answer
C. Guilleminault (United States)

C11 Restless legs syndrome
8:00am - 12:00pm I Club A

Chairs:
R. Allen (United States), D. Garcia-Borreguero (Spain)

8:00am - 8:05am
Introduction
D. Garcia-Borreguero (Spain)

8:05am - 8:35am
Difficult cases in RLS diagnosis
B. Högl (Austria)

8:35am - 9:05am
Main advantages and problems in dopaminergic treatment
J.W. Winkelman (United States)

9:05am - 9:35am
Using glutamatergic drugs
D. Garcia-Borreguero (Spain)

9:35am - 10:00am
Coffee break

10:00am - 10:30am
The role of opiates in RLS
C.J. Earley (United States)

10:30am - 11:00am
New IRLSSG standards of practice for iron treatment
R. Allen (United States)

11:00am - 11:30am
IV iron treatment for treatment resistant RLS
W. Ondo (United States)

11:30am - 12:00pm
Towards an integrated treatment algorithm
S. Chokroverty (United States)

C12 Pushing the envelope of sleep apnea medicine
8:00 - 12:00 I Club C

Chairs:
J. Puertas (Spain), J. Verbraecken (Belgium)

8:00am - 8:05am
Introduction
J. Verbraecken (Belgium), J. Puertas (Spain)

8:05am - 8:40am
Standard treatments for obstructive and central sleep apnea and their cardiovascular outcome
M. Eijsvogel (The Netherlands)

8:40am - 9:15am
Treatment of complex breathing disorders during sleep
W. Randerath (Germany)

9:15am - 9:50am
Routine and advanced monitoring of sleep apnea therapies
J. Montserrat (Spain)

9:50am - 10:10am
Coffee break

10:10am - 10:45am
CPAP and cognitive and metabolic functions
M. Bonsignore (Italy)

10:45am - 11:20am
Treatment of mild OSA: Treat it or not, and how
W. McNicholas (Ireland)

11:20am - 11:55am
How to deal with residual sleepiness and CPAP intolerance
S. Launois (France)

11:55am - 12:00pm
Question and answer
J. Verbraecken (Belgium), J. Puertas (Spain)

C13 Course 13: Heart and sleep
8:00 - 12:00 I Club B

Chairs:
D. McEvoy (Australia), D. Bradley (Canada)

8:00am - 8:10am
Introduction
D. Bradley (Canada)

8:10am - 8:30am
The current state of play - SAVE and a meta-analysis of CV event trials
D. McEvoy (Australia)

8:30am - 9:10am
OSA: Atrial fibrillation and other arrhythmias
D. Linz (Australia)

9:10am - 9:50am
Cardiovascular effects of intermittent hypoxia
C. Arnaud (France)

9:50am - 10:10am
Coffee break

10:10am - 10:50am
Biomarkers of cardiovascular risk in OSA
M. Sanchez-de-la-Torre (Spain)

10:50am - 11:30am
Effect of exercise on sleep apnea in patients with cardiovascular diseases
M. Mendelson (France)

11:30am - 12:00pm
Future opportunities for trials and experimental studies
D. Bradley (Canada)

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### T101 Technologist Program

**9:00am - 5:00pm | Club H**

**Chairs:**
S. Keenan (United States), O. Ludka (Czech Republic)

**Opening address**
9:00am - 9:05am

**Parasomnias, movement disorders and forensics in sleep medicine: Sleep technology at its most exciting and most challenging**
M. Mahowald (United States)
9:05am - 9:50am

**Variability in scoring of respiratory events during sleep**
E. Sif Arnardottir (Iceland)
9:50am - 10:20am

**Coffee break**
10:20am - 10:40am

**Cognitive behavioral therapy**
V. Castronovo (Italy)
10:40am - 11:10am

**Orofacial myofunctional therapy**
J. Moeller (United States)
11:10am - 12:10pm

**Overview of normal human sleep: Clinical and technical considerations**
S. Keenan (United States)
12:10pm - 12:15pm

**Question and answer**
12:15pm - 12:20pm

**Lunch break**
12:20pm - 1:10pm

**Overview of childhood sleep disorders**
S. Sullivan (United States)
2:00pm - 2:05pm

**Driving and sleep apnea: European driver’s license**
M. Gonçalves (Portugal)
2:05pm - 2:30pm

**New technology based on sound collection**
K. Melehan (Australia)
3:00pm - 3:20pm

**Coffee break**
3:20pm - 3:40pm

**The impact of lack of early diagnosis of sleep disorders: The need for community outreach**
S. Keenan (United States)
3:40pm - 4:00pm

3:50pm - 4:20pm
**Sleep disordered breathing in adults with down syndrome**
L. Hill (United Kingdom)

**Question and answer**

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### C14 Dental sleep medicine

**12:30pm - 4:30pm | Club C**

**Chairs:**
C. Guilleminault (United States), G. Lavigne (Canada)

**Introduction**
G. Lavigne (Canada)
12:30pm - 12:35pm

**Pediatric RME and childhood OSA including long term follow-up**
P. Pirelli (Italy)
12:35pm - 1:15pm

**Bone to bone rapid maxillary expension**
B. Vande Vannet (Belgium)
1:15pm - 1:55pm

**Distraction Osteogenesis Maxillary Expansion: New Surgical RME for OSA**
A. Yoon (United States)
1:55pm - 2:25pm

**Dental devices and obstructive sleep-apnea**
M. Marklund (Sweden)
2:25pm - 3:25pm

**MFT and orthodontics**
J. Moeller (United States)
3:25pm - 3:55pm

**Conclusion: The developing field of dental sleep medicine**
N. Huhn (Canada)
3:55pm - 4:25pm

**Question and answer**
G. Lavigne (Canada)
4:25pm - 4:30pm

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### C15 Sleep and neurodegeneration

**12:30pm - 4:30pm | Club A**

**Chairs:**
L. Ferini-Strambi (Italy), A. Iranzo (Spain)

**Introduction**
L. Ferini-Strambi (Italy)
12:30pm - 12:35pm

**Idiopathic REM sleep behavior disorder: Diagnosis, management and an opportunity for neuroprotective trials**
A. Stefani (Austria)
12:35pm - 1:25pm

**Question and answer**
G. Lavigne (Canada)
1:25pm - 1:30pm

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View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
1:20pm - 2:00pm  
**Sleep disorders in Parkinson disease: Disease duration and phenotype effects**  
M.L. Fantini (France)

2:00pm - 2:40pm  
**Sleep disorders in IgLON5 disease**  
A. Iranzo (Spain)

2:40pm - 3:00pm  
**Coffee break**

3:00pm - 3:40pm  
**Sleep disorders in Alzheimer disease: From the possible opportunity for AD prevention to the clinical management**  
L. Ferini-Strambi (Italy)

3:40pm - 4:20pm  
**Sleep disorders and nocturnal stridor in multiple system atrophy**  
V. Cochen DeCock (France)

4:20pm - 4:30pm  
**Conclusion**  
A. Iranzo (Spain)

**C16 Sleep related movements: Standards for scoring, interpreting, reporting and publishing**  
12:30pm - 4:30pm I Club B

- **Chairs:**  
  R. Allen (United States), R. Ferri (Italy), S. Fulda (Switzerland)

12:30pm - 1:00pm  
**Periodic leg movements scoring: Updated 2016 international rules for the scoring of periodic leg movement issues and importance of respiratory event related leg movements**  
S. Fulda (Switzerland)

1:00pm - 1:45pm  
**Practice scoring examples by new criteria- Participants computer files using automatic scoring programs – with practical examples**  
S. Fulda (Switzerland), R. Allen (United States), R. Ferri (Italy), D. Alvarez Estevez (Spain)

1:45pm - 2:15pm  
**Automatic detection, evaluation of leg movements moving beyond PLM, with examples**  
R. Allen (United States), D. Alvarez Estevez (Spain)

2:15pm - 2:45pm  
**Fragmentary leg movements and high frequency leg movements scoring: Fragmentary leg movements and high frequency leg movements scoring. Review presentation with practice scoring.**  
B. Högl (Austria)

2:45pm - 3:05pm  
**Coffee break**

3:05pm - 3:35pm  
**REM sleep behavior disorders scoring: Visual scoring of REM sleep without atonia and complex behaviour in RBD with practical examples**  
F. Sixel-Döring (Germany)

3:35pm - 4:00pm  
**Automatic scoring of REM sleep without atonia**  
R. Ferri (Italy)

4:00pm - 4:30pm  
**Sleep related bruxism scoring: Electrode placements, Visual scoring and reporting**  
T. Kato (Japan)
A multidisciplinary approach
by leading international experts

Sleep-Related Breathing Disorders

Editor: Hsin-Ching Lin

Many sleep-related breathing disorders (SRBD), especially obstructive sleep apnea, originate from upper airway abnormalities. The connection to cardio- and cerebrovascular comorbidities is significant and the impact on the general health of patients is noteworthy. In recent years, important advances have been made in the research, diagnosis, and treatment of SRBD due to a multidisciplinary approach. This volume incorporates contributions in which the efforts and expertise of more than thirty outstanding experts are shared. It provides a concise, practical, and comprehensive review of sleep medicine and will enable researchers and physicians to stay updated on the latest developments.

Advances in Oto-Rhino-Laryngology,
Vol. 80
Sleep-Related Breathing Disorders
Editor: Lin, H.-C. (Kaohsiung)
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Please join us at our Satellite Symposium

Boosting Slow Wave Sleep to Improve Cognitive Outcomes

The Philips scientific program will explore the different mechanisms to enhance slow wave sleep and improve cognition and memory with a focus on the acoustical methods.

**Novel Ways to Enhance Slow Wave Sleep**
Phyllis Zee, MD, PhD. Chief of Sleep Medicine, Northwestern University

**Acoustical Enhancement of Slow Wave Sleep**
Clare Anderson, PhD. Associate Professor, Monash University

**Chair:** Teofilo Lee-Chiong, MD  
**Date:** Monday, 9th October 2017  
**Time:** 12:30 – 14:00  
**Location:** "North Hall" room
"Individually we present, collectively we advance sleep science and medicine worldwide."

– Dr. Clete Kushida, President - World Sleep Society
K01 The evolution of human sleep based on present-day hunter-gatherers
J. Siegel (United States)

Keynote
8:00am - 9:00am I Congress Hall

S01 SERVE-HF and beyond
9:00am - 10:30am I Congress Hall

Chairs:
S. Javaheri (United States), C. Kushida (United States)

9:00am - 9:03am
Introduction
S. Javaheri (United States)

9:03am - 9:20am
Central sleep apnea in heart failure
W. Randerath (Germany)

9:20am - 9:37am
SERVE-HF update
P. Levy (France)

9:37am - 9:54am
ADVENT-HF update
D. Bradley (Canada)

9:54am - 10:11am
Oxygen therapy for central sleep apnea in heart failure
S. Javaheri (United States)

10:11am - 10:28am
Phrenic nerve stimulation to treat central sleep apnea in heart failure
A. Malhotra (United States)

10:28am - 10:30am
Question and answer
C. Kushida (United States)

S02 Sleep and hypertension - causality and co-morbidities
9:00am - 10:30am I Meeting Hall IV

Chairs:
G. Shukla (India)

9:00am - 9:05am
Introduction
G. Shukla (India)

9:05am - 9:20am
Obstructive sleep apnea in hypertension - mechanisms and therapy
V. Somers (United States)

9:25am - 9:45am
'Syndrome Z' - teasing out the interlinking of obstructive sleep apnea and hypertension
J. Suri (India)

9:45am - 10:05am
Sleep disorders in resistant hypertension - how big is the burden?
G. Shukla (India)

10:05am - 10:25am
Restless legs syndrome and periodic limb movement disorder and the link with hypertension
R. Ferri (Italy)

10:25am - 10:30am
Question and answer
G. Shukla (India)

S03 Sleep and stress: A relationship lasting a lifetime
9:00am - 10:30am I Meeting Hall V

Chairs:
L. Palagini (Italy)

9:00am - 9:05am
Introduction
L. Palagini (Italy)

9:05am - 9:20am
Roads leading to insomnia: The role of stress from the perinatal period through adult life
L. Palagini (Italy)

9:20am - 9:37am
Perinatal stress and hypnic derangements in adults:
News from animal models
S. Bastianini (Italy)

9:37am - 9:54am
Acute stress and modulation of central and peripheral circadian clocks in mice
P. Franken (Switzerland)

9:54am - 10:11am
Social defeat in rats as a model to study stress-induced changes in the circadian function and sleep
P. Meerlo (The Netherlands)

10:11am - 10:28am
The role of stress reactivity in insomnia and circadian disorders
C. Drake (United States)

10:28am - 10:30am
Question and answer
L. Palagini (Italy)

S04 The importance of sleep in children around the world: Factors which affect outcomes
9:00am - 10:30am I North Hall

Chairs:
R. Horne (Australia)

9:00am - 9:05am
Introduction
R. Horne (Australia)

9:05am - 9:25am
Sleep practices and sleep problems in Māori and New Zealand children from different socioeconomic backgrounds
D. Elder (New Zealand)
9:25am - 9:45am
**The effects of altitude on sleep patterns and habits in children**
C. Hill (United Kingdom)

9:45am - 10:05am
**Adverse consequences of sleep deprivation in Hong Kong adolescents – cardiovascular perspective**
A. Li (Hong Kong)

10:05am - 10:25am
**Are the consequences of obstructive sleep apnoea compounded by obesity in children?**
R. Horne (Australia)

10:25am - 10:30am
**Question and answer**
R. Horne (Australia)

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**S05 Sleep and circadian factors in metabolic risk: A translational perspective**
9:00am - 10:30am I Club A and B

**Chairs:**
M. Grandner (United States)

9:00am - 9:05am
**Introduction**
M. Grandner (United States)

9:05am - 9:25am
**Basic circadian regulation of metabolism**
U. Albrecht (Switzerland)

9:25am - 9:45am
**Sleep and energy balance in humans**
K. Wright (United States)

9:45am - 10:05am
**Clinical impact of sleep deprivation and extension on metabolic risk**
K. Spiegel (France)

10:05am - 10:25am
**Impact of sleep and circadian processes on population health**
M. Grandner (United States)

10:25am - 10:30am
**Question and answer**
M. Grandner (United States)

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**S06 Role of neuroimaging: Brain characteristics in sleep disorders**
9:00am - 10:30am I Meeting Hall 1A

**Chairs:**
S.B. Hong (Republic of Korea), Y. Inoue (Japan)

9:00am - 9:05am
**Introduction**
Y. Inoue (Japan)

9:05am - 9:25am
**The association between brain structure and cognition in OSA: Largescale Korean MRI (n=1200) study**
R. Kim (Republic of Korea)

10:05am - 10:25am
**Obstructive sleep apnea syndrome and genetics: Data from a population based cohort in Brazil**
P. Farias Tempaku (Brazil)

10:25am - 10:30am
**Question and answer**
S. Tufik (Brazil)

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**S07 The role of genetic biomarkers in sleep medicine**
9:00am - 10:30am I Meeting Hall 1B

**Chairs:**
S. Tufik (Brazil)

9:00am - 9:05am
**Introduction**
S. Tufik (Brazil)

9:05am - 9:25am
**Large-scale genomic studies to identify sleep-related risk factors**
M. Tafti (Switzerland)

9:25am - 9:45am
**Genetics of insomnia**
H. Tiemeier (The Netherlands)

9:45am - 10:05am
**Genome-wide association study of sleep bruxism in the episono cohort**
R. Amaral Jr. (Brazil)

10:05am - 10:25am
**Obstructive sleep apnea syndrome and genetics: Data from a population based cohort in Brazil**
P. Farias Tempaku (Brazil)

10:25am - 10:30am
**Question and answer**
S. Tufik (Brazil)

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**S08 Iron metabolism: Genetics, environment and restless legs syndrome (RLS)**
9:00am - 10:30am I Club D and E

**Chairs:**
R. Allen (United States)

9:00am - 9:02am
**Introduction**
R. Allen (United States)

9:02am - 9:19am
**Complex genetics of brain iron regulation**
B.C. Jones (United States)
9:19am - 9:36am
Iron uptake into the RLS brain: The Blood-Brain-Barrier
J. Connor (United States)

9:36am - 9:53am
Brain Imaging - iron status relation to RLS symptoms
G. Rizzo (Italy)

9:53am - 10:10am
Iron deficiency anemia and RLS
C.J. Earley (United States)

10:10am - 10:27am
RLS IV iron treatment - markers of success
R. Allen (United States)

10:27am - 10:30am
Question and answer
R. Allen (United States)

S09 Physiological responses of oromaxillofacial anatomy in obstructive sleep apneics undergoing maxillomandibular advancement (MMA)
9:00am - 10:30am I Terrace 1

Chairs:
C.C.-H. Lin (Taiwan)

9:00am - 9:02am
Introduction
C.C.-H. Lin (Taiwan)

9:02am - 9:16am
To rotate or not to rotate: The surgical planning in MMA
D.C. Y. Ho (Taiwan)

9:16am - 9:30am
Myofunctional management during MMA
V. Pandit (India)

9:30am - 9:44am
Translation and transformation of tongue and soft palate after MMA
R. Sasaki (Japan)

9:44am - 9:58am
Three-dimensional changes in pharyngeal airway in OSA patients undergoing MMA
E.C. K. Chan (Hong Kong)

9:58am - 10:12am
Segmental Maxillomandibular Rotational Advancement: why, when and how?
C.C.-H. Lin (Taiwan)

10:12am - 10:30am
Question and answer
C.C.-H. Lin (Taiwan)

T01 Hands-on head wiring, with paediatric aspects of polysomnography
9:00am - 10:30am I Club H

Chairs:
S. Keenan (United States), O. Ludka (Czech Republic)

Speakers:
L. Hill (United Kingdom), S. Briscoe (United Kingdom)

K02 Central hypersomnias through the eyes of time
S. Nevšímalová (Czech Republic)

Keynote 10:30am - 11:15am I Congress Hall

S10 REM-sleep and depression: Research into clinically meaningful biomarkers
10:30am - 12:00am I Meeting Hall IV

Chairs:
T. Mikoteit (Switzerland)

10:30am – 10:35am
Introduction
T. Mikoteit (Switzerland)

10:35am – 11:00am
Preclinical models to understand REM sleep in depression
M. Kimura (Germany)

11:00am – 11:25am
REM sleep derived biomarkers for depression: heart rate variability and prefrontal theta cordance
T. Mikoteit (Switzerland)

11:25am – 11:50am
Depression and sleep in patients with multiple sclerosis
D. Sadeghi (Islamic Republic of Iran)

11:50am – 12:00pm
Question and answer
T. Mikoteit (Switzerland)

S11 The role of nocturnal eating on insomnia, diurnal sleepiness and obesity
10:30am - 12:00pm I Meeting Hall V

Chairs:
P. Vinai (Italy)

10:30am - 10:35am
Introduction
P. Vinai (Italy)

10:35am - 11:05am
Insomnia, diurnal sleepiness and sensivity to reward: A review
A. Da Ros (Italy)

11:05am - 11:35am
Sleep monitoring in patients with night eating syndrome with and without binge eating disorder
Y. Latzer (Israel)

11:35am - 11:55am
Psychopathology of patients with NES either affected or not by binge eating disorders
O. Tzischinsky (Israel)

11:55am - 12:00pm
Question and answer
P. Vinai (Italy)
S12 The interplay between sleep and academic performance: From neural mechanisms to educational policy
10:30am - 12:00pm | North Hall

Chairs:
R. Gruber (Canada)

Introduction
R. Gruber (Canada)

10:32am - 11:23am
Overview of mechanisms that underlie the interplay between sleep and academic performance
R. Gruber (Canada)

11:06am - 11:35am
The impact of improved and extended sleep on key processes needed for academic success
E. De Bruin (The Netherlands)

11:23am - 11:57am
The role of sleep in memory consolidation and cognitive abilities – implications to academic success
S. Fogel (Canada)

11:55am - 12:00pm
Question and answer
R. Gruber (Canada)

S13 OSA and atherogenesis: Reversible or not?
10:30am - 12:00pm | Club A and B

Chairs:
D. Gozal (United States), J.M. Marin (Spain)

Introduction
D. Gozal (United States)

10:35am - 11:15am
Intermittent hypoxia in humans: Vascular correlates and potential mechanisms
M. Poulin (Canada)

11:35am - 11:55am
Atherosclerosis in OSA: The EPIOSA study
J.M. Marin (Spain)

11:55am - 12:00pm
Question and answer
J.M. Marin (Spain)

S15 Local sleep and local wake: From basic science to sleep arousal disorders
10:30am - 12:00pm | Meeting Hall 1B

Chairs:
R. Benca (United States)

Introduction
A. Castelnovo (United States)

10:35am - 11:15am
The role of sleep in memory consolidation and cognitive abilities – implications to academic success
V. Vyazovskiy (United Kingdom)

11:15am - 11:35am
Local changes in slow wave activity: A trait feature of sleep arousal disorders?
A. Castelnovo (United States)

11:35am - 12:00pm
Question and answer
A. Castelnovo (United States)

S16 Nasal obstruction and its role in sleep disordered breathing
10:30am - 12:00pm | Terrace 1

Chairs:
C. Torre (United States)

Introduction
C. Torre (United States)

10:35am - 11:15am
Understanding nasal obstruction and compromised nasal flow dynamics
C. Torre (United States)

11:15am - 11:35am
Pediatric nonsurgical nasal cavity expansion
S. Quo (United States)
11:15am - 11:35am
Distraction osteogenesis maxillary expansion with palatal implants for OSA in adults
A. Yoon (United States)

11:35am - 11:55am
MMA following maxillary expansion: What have we learned
S. Liu (United States)

11:55am - 12:00am
Question and answer
C. Torre (United States)

001 Sleep breathing disorders oral abstract presentations

10:30am – 12:00pm I Club D and E

10:30am – 10:45am
RISK FACTORS OF OBSTRUCTIVE SLEEP APNEA SYNDROME IN CHINESE CHILDREN
Z. Xu (China)

10:45am – 11:00am
AN INTEGRATED META-OMICS BASED APPROACH IN PEDIATRIC OBSTRUCTIVE SLEEP APNEA SYNDROME: PILOT RESULTS
H. Xu (China)

11:00am – 11:15am
CIRCULATING LEVELS OF MICRORNA-210 AND MICRORNA-126 ARE INCREASED IN HYPERTENSIVE PATIENTS SUFFERING FROM OBSTRUCTIVE SLEEP APNEA: PILOT RESULTS
J. Novak (Czech Republic)

11:15am – 11:30am
BIOMECHANICAL AND STRESS DISTRIBUTION EFFECTS OF MAXILLARY EXPANSION METHODS (SARPE, MARPE, DOME) USING FINITE ELEMENT MODEL
Y.-F. Chen (United States)

11:30am – 11:45am
LONGTERM ORAL APPLIANCE THERAPY IMPROVES DAYTIME FUNCTION AND MOOD IN UPPER AIRWAY RESISTANCE SYNDROME PATIENTS
L. Godoy (Brazil)

11:45am – 12:00pm
THE EFFECT OF EXTENDED WAKEFULNESS ON POSTURAL CONTROL IN OBSTRUCTIVE SLEEP APNEA AND HEALTHY CONTROLS
D. Stevens (Australia)

002 Insomnia oral abstract presentations

10:30am – 12:00pm I Club H

10:30am – 10:45am
SHORT AND LONG TERM PROLONGED RELEASE MELATONIN TREATMENT FOR SLEEP DISORDERS IN CHILDREN WITH AUTISM SPECTRUM DISORDERS: RESULTS OF A PHASE III RANDOMIZED CLINICAL TRIAL
P. Gringras (United Kingdom)

10:45am – 11:00am
YOUNG WOMEN WITH SHORT SLEEP DURATION AND INSOMNIA RUN A HIGH RISK OF DEVELOPING HYPERTENSION AND DIABETES MELLITUS. A 10-YEAR FOLLOW-UP OF THE POPULATION-BASED SHE STUDY
J. Theorell-Haglöw (Sweden)

11:00am – 11:15am
HYPERACTIVITY OF THE OREXIN SYSTEM AND CHRONIC INSOMNIA IN A MOUSE MODEL OF ALCOHOL DEPENDENCE
C. Blanco-Centurion (United States)

11:15am – 11:30am
DISRUPTED WHITE MATTER INTEGRITY IN INSOMNIA AND MAJOR DEPRESSIVE DISORDER: CORRELATIONS WITH SUBJECTIVE AND OBJECTIVE SLEEP PARAMETERS
J.W. Winkelman (United States)

11:30am – 11:45am
THE EFFECTS OF INSOMNIA SYMPTOMS AND OBJECTIVE SHORT SLEEP DURATION ON MEMORY PERFORMANCE IN ADOLESCENTS AND YOUNG ADULTS
J. Ling (Hong Kong)

11:45am – 12:00pm
ASSOCIATION BETWEEN STRESS-INDUCED AROUSAL AND NOCTURNAL SLEEP: A PRELIMINARY STUDY
I.Y. Chen (Canada)

K03 Racial difference in sleep disorders
Y. Inoue (Japan)

Keynote 11:15am - 12:00pm I Congress Hall

TEVA Industry Satellite Symposium: Challenges of recognizing and treating excessive sleepiness
12:30pm - 2:00pm I Congress Hall

Chairs:
J. Schwartz (United States)

Opening Remarks
J. Schwartz (United States)

12:30pm – 12:45pm
Excessive sleepiness (ES) in OSA
R. Grunstein (Australia)

1:15pm – 1:45pm
Panel discussion
J. Schwartz (United States), R. Grunstein (Australia)
Merck Industry Satellite Symposium: New approaches to personalizing treatment of insomnia: Why and how?
12:30pm - 2:00pm I Meeting Hall IV

12:30pm – 12:40pm
Welcome and introduction
C. Morin (Canada)

12:40pm – 1:00pm
Health consequences of insomnia: Cognition, mood and medical impact
C. Morin (Canada)

1:00pm – 1:20pm
Personalization of insomnia therapy: Matching treatment mechanisms with patient needs
A. Krystal

1:20pm – 1:40pm
Orexin receptor antagonists in the management of insomnia – Mechanisms and clinical implications
T. Roth

1:40pm – 2:00pm
Closing remarks and question and answer
C. Morin (Canada)

Philips Industry Satellite Symposium: Boosting slow wave sleep to improve cognitive outcomes
12:30pm - 2:00pm I North Hall

Chairs:
T. Lee-Chiong (United States)

12:30pm – 12:35pm
Introduction
T. Lee-Chiong (United States)

12:35pm – 1:05pm
Novel ways to enhance slow wave sleep
P. Zee (United States)

1:05pm – 1:35pm
Acoustical enhancement of slow wave sleep
C. Anderson (Australia)

1:35pm – 2:00pm
Question and answer
T. Lee-Chiong (United States)

S17 New evidence on the treatment of insomnia comorbid with depression, pain, sleep apnea or circadian disorders
2:00pm - 3:30pm I Congress Hall

Chairs:
C. Morin (Canada), Y.K. Wing (Hong Kong)

2:00pm - 2:02pm
Introduction
C. Morin (Canada)

2:02pm - 2:19pm
Treating sleep disturbances in treatment resistant depression – does it help?
Y.K. Wing (Hong Kong)

2:19pm - 2:36pm
Treatment of pain, depression, and sleep disturbances in rheumatoid arthritis patients
M.R. Irwin (United States)

2:36pm - 2:53pm
Cognitive behavioral therapy for insomnia in patients with comorbid obstructive sleep apnea
A.M. Sweetman (Australia)

2:53pm - 3:10pm
Triple vulnerability? Circadian tendency, sleep deprivation and adolescence: A randomized controlled trial
A. Harvey (United States)

3:10pm - 3:27pm
Sequential therapies with CBT and medication for insomnia with and without comorbid psychiatric disorders
C. Morin (Canada)

3:27pm - 3:30pm
Question and answer
Y.K. Wing (Hong Kong)

S18 Beyond academic walls: Society education as an essential field in sleep science
2:00pm - 3:30pm I Meeting Hall IV

Chairs:
M.L. Andersen (Brazil)

2:00pm - 2:05pm
Introduction
M.L. Andersen (Brazil)

2:05pm - 2:25pm
Scientific communication in sleep: Why, how and to whom
P. Araujo (Brazil)

2:25pm - 2:45pm
Education campaigns to improve sleep of socioeconomically disadvantaged children
J.A. Mindell (United States)

2:45pm - 3:05pm
Strategies to increase sleep awareness in health professionals
L. Kim (Brazil)

3:05pm - 3:25pm
Sleep timing: Health consequences and social gains
T. Roenneberg (Germany)

3:25pm - 3:30pm
Question and answer
M.L. Andersen (Brazil)

S19 Sleep disorders in the adolescent population: The missing link
2:00pm - 3:30pm I North Hall

Chairs
S. Weiss (Canada), S. Kothare (United States)
2:00 pm - 2:01 pm
Introduction
S. Weiss (Canada)

2:01 pm - 2:03 pm
Summary
S. Kothare (United States)

2:03 pm - 2:20 pm
Sleep disordered breathing in adolescents: The missing link
D.K.-K. Ng (Hong Kong)

2:20 pm - 2:37 pm
Sleep disorders and mental health comorbidities in adolescents
O. Bruni (Italy)

2:37 pm - 2:54 pm
Seizures vs. nonepileptic events in sleep in adolescents
G. Shukla (India)

2:54 pm - 3:11 pm
Sleep co-morbidity with traumatic brain injury (TBI) in adolescents
S. Kothare (United States)

3:11 pm - 3:28 pm
Sleep disorders in adolescents with neurodevelopmental disorders
S. Weiss (Canada)

3:28 pm - 3:30 pm
Question and answer
S. Weiss (Canada)

S20 Advances in obstructive sleep apnea pathogenesis and non-CPAP therapies
2:00 pm - 3:30 pm I Club A and B

Chairs:
R. Heinzer (Switzerland)

2:00 pm - 2:05 pm
Introduction
R. Heinzer (Switzerland)

2:05 pm - 2:25 pm
The role of pharyngeal anatomy and airway collapsibility in the pathogenesis of OSA
A. Schwartz (United States)

2:25 pm - 2:45 pm
Importance of the upper airway muscles and arousal threshold in the pathogenesis of OSA
D. Eckert (Australia)

2:45 pm - 3:05 pm
The role of the respiratory control in the pathogenesis of OSA
A. Wellman (United States)

3:05 pm - 3:25 pm
Current and future pathways for non-CPAP therapies to treat OSA
M. Kohler (Switzerland)

3:25 pm - 3:30 pm
Question and answer
R. Heinzer (Switzerland)

S21 European Narcolepsy Network (EU-NN) - Narcolepsy: From etiology to treatment
2:00 pm - 3:30 pm I Meeting Hall 1A

Chairs:
C. Bassetti (Switzerland)

2:00 pm - 2:02 pm
Introduction
C. Bassetti (Switzerland)

2:02 pm - 2:19 pm
Introduction to the EU-NN
G. Mayer (Germany)

2:19 pm - 2:36 pm
Clinical picture of narcolepsy and its borderland (based on the EU-NN database)
R. Khatami (Switzerland)

2:36 pm - 2:53 pm
Auto-immunity and the etiology of narcolepsy - the human story
U. Kallweit (Switzerland)

2:53 pm - 3:10 pm
Auto-immunity and the etiology of narcolepsy - the animal story
C. Peyron (France)

3:10 pm - 3:27 pm
Treatment for narcolepsy (and its assessment)
R. Fronczek (The Netherlands)

3:27 pm - 3:30 pm
Question and answer
C. Bassetti (Switzerland)

S22 The waking, sleeping and dreaming brain: New circuits and insights
2:00 pm - 3:30 pm I Meeting Hall 1B

Chairs:
P.M. Fuller (United States), M. Lazarus (Japan)

2:00 pm - 2:02 pm
Introduction
P.M. Fuller (United States)

2:02 pm - 2:19 pm
Dopaminergic control of sleep and waking
L. de Lecea (United States)

2:19 pm - 2:36 pm
A novel inhibitory wake-promoting hypothalamic circuit
A. Venner (United States)

2:36 pm - 2:53 pm
The role of the nucleus accumbens in sleep regulation
Y. Oishi (Japan)

2:53 pm - 3:10 pm
Regulatory mechanisms of sleep and memory by hypothalamic neurons
A. Yamanaka (Japan)

View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
Hypothalamic control of REM sleep
A. Adamantidis (Switzerland)

Question and answer
M. Lazarus (Japan)

S23 In search of alternatives to dopaminergic ligands in RLS/WED: The Emerging role of glutamate and adenosine
2:00pm - 3:30pm | Club D and E

Chairs:
D. Garcia-Borreguero (Spain)

Introduction
D. Garcia-Borreguero (Spain)

The role of hyperarousal in the neurophysiology of RLS and PLMS
R. Ferri (Italy)

Adenosine neurotransmission in RLS
S. Ferré (United States)

Adenosine-dopamine receptor interactions in the spinal cord of RLS animal models
S. Clemens (United States)

Glutamate, adenosine and sleep deprivation
H.-P. Landolt (Switzerland)

Implications for future treatments
D. Garcia-Borreguero (Spain)

Question and answer
D. Garcia-Borreguero (Spain)

S24 Personalization of mandibular advancement devices: Digital analysis of the movements achieved and mathematical model for the study of the jaw kinematics.
2:00pm - 3:30pm | Terrace 1

Chairs:
J. Vila (Spain)

Introduction
D. Garcia-Borreguero (Spain)

Identification of anatomical and functional features related to the mandible as a step in the design of a customized MAD
P. Mayoral (Spain)

Different design features of available MADs
F. Milano (Italy)

Analysis of the movements of the mandible and hyoid bone in the treatment of OSA with MAD
J. Vila (Spain)

Mathematical model of the jaw kinematics and its application to MAD design
A. Bataller (Spain)

Question and answer
P. Mayoral (Spain)

O03 Sleep breathing disorders oral abstract presentations
2:00pm – 3:30pm | Meeting Hall V

SHARE-D-DECISION MAKING TOOL FOR OBSTRUCTIVE SLEEP APNEA
A. Duggins (United States)

EFFECT OF UPPER AIRWAY SURGERIES ON CARDIOVASCULAR RISK PROFILES AND GLOBAL CARDIOVASCULAR RISK IN OSAHS PATIENTS
S. Yin (China)

IMPROVEMENT OF SLEEP APNEA SYNDROME AND DAYTIME SLEEPINESS AFTER SURGERICALLY ASSISTED RAPID MAXILLARY EXPANSION IN ADULT PATIENTS
P.P. Vinha (Brazil)

LONGITUDINAL EFFECTS OF PERIODIC BREATHING ON CEREBRAL OXYGENATION IN TERM AND PRETERM BORN INFANTS
R. Horne (Australia)

NASAL OBSTRUCTION DECREASE AFTER TWO YEARS OF PAP TREATMENT
M. Värendh (Sweden)

IS THE RESPIRATORY STABILITY DURING SLEEP IN PATIENTS WITH SEVERE HEART FAILURE INFLUENCED BY THE NOCTURNAL OXYGEN LEVEL: A SUB-ANALYSIS OF THE PROST STUDY USING A NOVEL RESPIRATORY STABILITY INDEX
T. Tobushi (Japan)

T02 Cardiopulmonary resuscitation for sleep technologists part 1
2:00pm - 3:30pm | Club H

Chairs:
S. Keenan (United States), O. Ludka (Czech Republic)

Speakers:
I. Cundrle Jr. (Czech Republic), L. Ruzek (Czech Republic), O. Ludka (Czech Republic)
K04 Dental Sleep Medicine
C.C.-H. Lin (Taiwan)

Keynote 3:30pm - 4:15pm I Congress Hall

S25 Measuring quality in the delivery of sleep medicine: Metrics and patient reported outcomes
3:30pm - 5:00pm I Meeting Hall IV

Chairs:
C. Iber (United States)

Introduction
C. Iber (United States)

3:35pm - 4:00pm
Beyond the epworth: Patient reported outcomes in obstructive sleep apnea syndrome
H. Walia (United States)

4:00pm - 4:25pm
Patient reported outcomes in narcolepsy: How to adapt treatment to the patient
F. Han (China)

4:25pm - 4:50pm
Improving access and quality using virtual care
C. Iber (United States)

4:50pm - 5:00pm
Question and answer
C. Iber (United States)

S26 Factors in night and rotating shift work associated with poor sleep and health
3:30pm - 5:00pm I Meeting Hall V

Chairs:
T. Shochat (Israel)

Introduction
T. Shochat (Israel)

3:30pm - 3:33pm
The influence of bio-psychological predictors on subjective sleepiness of female nurses during the night shift with and without a short planned nap
N. Zion (Israel)

3:33pm - 3:50pm
Sleep patterns and functioning during night and morning rotating shifts in the transition from 8 to 12-hour rosters among airline employees
O. Tzischinsky (Israel)

3:50pm - 4:07pm
Are quick returns (<11 hours between consecutive shifts) typically seen in rotating shift work schedules more detrimental to health than night work?
B. Bjorvatn (Norway)

4:07pm - 4:24pm
Artificial light and health in indoor workers
A. Lowden (Sweden)

4:24pm - 4:41pm
Futuristic solutions to the physiological problems of shift work based on circadian rhythm principles
C. Eastman (United States)

4:41pm - 4:58pm
Question and answer
T. Shochat (Israel)

S27 Functioning of the restless legs syndrome (RLS) brain: Excitability and control
3:30pm - 5:00pm I North Hall

Chairs:
R. Allen (United States)

Introduction
R. Allen (United States)

3:30pm - 3:35pm
Cortical excitability and RLS
R. Salas (United States)

3:35pm - 3:55pm
Resting state connectivity
Y.W. Cho (Republic of Korea)

3:55pm - 4:15pm
TMS stimulation and connectivity in RLS
Y. Wang (China)

4:15pm - 4:35pm
Connectivity and attentional control
J. Kassubek (Germany)

4:35pm - 4:55pm
Question and answer
R. Allen (United States)

S28 Arousalability and loop gain: The factors that bridge insomnia and sleep-disordered breathing
3:30pm - 5:00pm I Club A and B

Chairs:
L. Parrino (Italy), D. Pevernagie (Belgium)

Introduction
L. Parrino (Italy)

3:30pm - 3:35pm
Failure to control the AHI - a clinician’s perspective
D. Pevernagie (Belgium)

3:35pm - 3:55pm
The role of arousability and loop gain in the pathogenesis of SDB
M. Bosi (Italy)

3:55pm - 4:15pm
Sleep fragmentation in anxiety and chronic stress
T. Akerstedt (Stockholm, Sweden)

4:15pm - 4:35pm
Question and answer
R. Allen (United States)
4:35pm - 4:55pm  
Sleep disordered breathing and insomnia: Overlap and comorbidity  
L. Parrino (Italy)

4:55pm - 5:00pm  
Question and answer  
D. Pevernagie (Belgium)

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S29 New developments in narcolepsy diagnosis, research and therapeutics  
3:30pm - 5:00pm I Meeting Hall 1A  

Chairs:  
T. Kilduff (United States), C. Peyron (France)

3:30pm - 3:35pm  
Introduction  
T. Kilduff (United States)

3:35pm - 3:55pm  
Age-dependent narcolepsy phenotypes in patients  
G. Plazzi (Italy)

3:55pm - 4:15pm  
Development of narcolepsy in healthy mice following an autoimmune attack  
C. Peyron (France)

4:15pm - 4:35pm  
Generation of sleep disorder model mice by ablation of specific types of neurons  
A. Yamanaka (Japan)

4:35pm - 4:55pm  
TAAR1 agonists as potential narcolepsy therapeutics  
T. Kilduff (United States)

4:55pm - 5:00pm  
Question and answer  
T. Kilduff (United States)

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S30 Behavioral and neurophysiological influences of waking system on sleep  
3:30pm - 5:00pm I Meeting Hall 1B  

Chairs:  
M.L. Andersen (Brazil), E. Garcia-Rill (United States)

3:30pm - 3:35pm  
Introduction  
M.L. Andersen (Brazil)

3:35pm - 3:55pm  
Neural basis of waking system  
E. Garcia-Rill (United States)

3:55pm - 4:15pm  
Involvement of the Primate PPN in transition from wakefulness to sleep  
L. Goetz (France)

4:15pm - 4:35pm  
Behavioral consequences of extended wakefulness  
M.L. Andersen (Brazil)

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4:35pm - 4:55pm  
Stimulation of the pedunculopontine: implications on sleep  
I. Arnulf (Paris, France)

4:55pm - 5:00pm  
Question and answer  
E. Garcia-Rill (United States)

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O04 Neurological sleep disorders affecting sleep oral abstract presentations  
3:30pm – 5:00pm I Club D and E  

3:30pm – 3:45pm  
IMPAIRED CONSCIOUSNESS STATES IN MYOTONIC DYSTROPHY-TYPE 1 MEDIATION BY γ-AMINO BUTYRIC ACID (GABA)  
D. Rye (United States)

3:45pm – 4:00pm  
SUBJECTIVE AND OBJECTIVE FEATURES OF SLEEP DISORDERS IN PATIENTS WITH ACUTE ISCHEMIC OR HAEMORRHAGIC STROKE  
E. Pajediene (Lithuania)

4:00pm – 4:15pm  
IMPAIRMENT OF AUTONOMIC NERVOUS SYSTEM IN AMYOTROPHIC LATERAL SCLEROSIS  
M. Puligheddu (Italy)

4:15pm – 4:30pm  
SPECIFIC NEURONAL PROCESSES IN LATERAL HYPOTHALAMUS ACCOUNT FOR THE MAIN SLEEP AND FEEDING SYMPTOMS IN PRADER-WILLI SYNDROMES  
E. Balzani (Italy)

4:30pm – 4:45pm  
CYCLIC ALTERNATING PATTERN AND INTERICTAL EPILEPTIFORM DISCHARGES DURING MORNING SLEEP DEPRIVED EEG IN TEMPORAL LOBE EPILEPSY  
A. Schirru (Italy)

4:45pm – 5:00pm  
AGENESIS OF THE CORPUS CALLOSUM: EFFECT ON SLEEP ARCHITECTURE  
R. Castriotta (United States)

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O05 Psychiatric disorders affecting sleep/wake oral abstract presentations  
3:30pm – 5:00pm I Terrace 1  

3:30pm – 3:45pm  
TROUBLED SLEEP, RESTLESS LEGS AND CATAPLEXY IN ADULTS WITH ADHD  
B. Bjorvatn (Norway)

3:45pm – 4:00pm  
REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION COMBINED WITH VENLAFAXINE FOR MAJOR DEPRESSIVE DISORDER WITH COMORBID ANXIETY AND INSOMNIA: A CONTROLLED POLYSOMNOGRAPHIC AND DIFFUSION MRI STUDY  
Z.-J. Zhang (Hong Kong)
4:00pm – 4:15pm
CORRELATION BETWEEN PHYSICAL ACTIVITY, ANXIETY AND SLEEP
M. Bodnari (Republic of Moldova)

4:15pm – 4:30pm
INVESTIGATION OF SLEEP AND COGNITIVE FUNCTIONS ON FIRST EPISODE DRUG-NAIVE NON-AFFECTIVE PSYCHOTIC PATIENTS
N. Yazihan (Turkey)

4:30pm – 4:45pm
NAPPING REDUCES ATTENTIONAL BIASES FOR NEGATIVE INTERPERSONAL STIMULI IN CLINICAL DEPRESSION
K.N.T. Lau (Hong Kong)

4:45pm – 5:00pm
CIRCADIAN RHYTHM SLEEP-WAKE DISORDERS PREDICT SHORTER TIME TO RELAPSE OF MOOD EPISODES IN EUTHYMIC PATIENTS WITH BIPOLAR DISORDER: A PROSPECTIVE 48-WEEK STUDY
Y. Takaesu (Japan)

O06 Neural plasticity, memory, parasomnia and pharmacology oral abstract presentations
3:30pm – 5:00pm I Club H

3:30pm – 3:45pm
OBSTRUCTIVE SLEEP APNEA AS A POTENTIAL EFFECT OF GABAPENTIN IN OLDER MEN
R. Piovezan (Brazil)

3:45pm – 4:00pm
THE CONSEQUENCES OF SLEEP-DISORDERED BREATHING (SDB) ON THE CONSOLIDATION OF DIFFERENT MEMORY PROCESSES IN CHILDREN AND ADULTS
E. Csábi (Hungary)

4:00pm – 4:15pm
THE EFFECTS OF ACUTE, SHORT-TERM VISUAL DEPRIVATION ON LOW-FREQUENCY EEG ACTIVITY DURING WAKEFULNESS AND SLEEP
G. Bernardi (Switzerland)

4:15pm – 4:30pm
NEW VIDEO-POLYSOMNOGRAPHIC CRITERIA FOR THE DIAGNOSIS OF DISORDERS OF AROUSAL
R. Lopez (France)

4:30pm – 4:45pm
DOES HORMONE REPLACEMENT THERAPY PROMOTE BETTER QUALITY OF SLEEP IN WOMEN? RESULTS FROM A LARGE CROSS-SECTIONAL NORWEGIAN STUDY (HUNT 3)
M. Cvancarova Smáštuen (Norway)

4:45pm – 5:00pm
SLEEP HOMEOSTATIC PROCESS IN CORTICAL AND CORTICOTHALAMIC CULTURES: A MODEL FOR SLEEP REGULATION
S. Saberi Moghadam (Switzerland)

K05 History of pediatric sleep and the contribution of sleep microstructure
O. Bruni (Italy)
Keynote 4:15pm - 5:00pm I Congress Hall

View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
S34 Pediatric OSA: Diagnostic and treatments involving a multidisciplinary team
5:30pm - 7:00pm I North Hall

Chairs:
C. Guilleminault (United States)

5:30pm - 5:35pm
Introduction
C. Guilleminault (United States)

5:35pm - 5:55pm
From dysfunction to dysmorphoses in development of pediatric OSA
C. Guilleminault (United States)

5:55pm - 6:15pm
Lingual frenulum: Role in pediatric OSA and its clinical investigation
A. Yoon (United States)

6:15pm - 6:35pm
Maxillary deficiency, pediatric OSA risk and zygomatic involvement
S. Quo (United States)

6:35pm - 6:55pm
Passive myofunctional therapy, long term follow-up: PSG and imaging
Y.-s. Huang (Taiwan)

6:55pm - 7:00pm
Question and answer
C. Guilleminault (United States)

S35 Minimally invasive implantable approaches for OSA
5:30pm - 7:00pm I Club A and B

Chairs:
V. Pavelec (Czech Republic)

5:30pm - 5:35pm
Introduction
V. Pavelec (Czech Republic)

5:35pm - 5:55pm
Base of tongue implants: Where we are now
V. Pavelec (Czech Republic)

5:55pm - 6:15pm
Implantable upper airway neurostimulation: Current approach
M. Suurna (United States)

6:15pm - 6:35pm
Implantable upper airway neurostimulation: New horizons
O. Jacobowitz (United States)

6:35pm - 6:55pm
European experience with different concepts of upper airway neurostimulation
J. Maurer (Germany)

6:55pm - 7:00pm
Question and answer
V. Pavelec (Czech Republic)

S36 Understanding the potential role for Mn in RLS etiology using novel human and animal models
5:30pm - 7:00pm I Meeting Hall 1A

Chairs:
J. Connor (United States)

5:30pm - 5:35pm
Introduction
J. Connor (United States)

5:35pm - 6:00pm
Identification of a novel role for BTBD9 in regulating Mn signaling in C. elegans
M. Aschner (United States)

6:00pm - 6:25pm
Brain and serum Mn levels and their relationship to iron status and genetic risk factors (BTBD9 and MEIS1)
A. Walters (United States)

6:25pm - 6:50pm
Understanding the role of Mn dyshomeostasis in RLS etiology using peripheral lymphocytes as a model
S. Patton (United States)

6:50pm - 7:00pm
Question and answer
J. Connor (United States)

S37 Basic research & new treatment approaches in sleeprelated breathing disorders
5:30pm - 7:00pm I Meeting Hall 1B

Chairs:
A. Büttnner-Teleaga (Germany)

5:30pm - 5:35pm
Introduction
A. Büttnner-Teleaga (Germany)

5:35pm - 5:55pm
REMS loss as indicator of neuronal apoptosis and degeneration
B. Mallick (India)

5:55pm - 6:15pm
Association of breathing pauses with genes (animal model)
K. Strohl (United States)

6:15pm - 6:35pm
New treatment strategy, nasal airway stent (NAS) in SBD
M. Satoh (Japan)

6:35pm - 6:55pm
Clinical importance of alternative treatments in SBD
A. Büttnner-Teleaga (Germany)

6:55pm - 7:00pm
Question and answer
A. Büttnner-Teleaga (Germany)
S38 Young Investigator: Sleep research in neurodegeneration
5:30pm - 7:00pm I Club D and E

5:30pm - 5:45pm
DIFFERENT MARKERS IN IDIOPATHIC RAPID EYE MOVEMENT (REM) SLEEP BEHAVIOR DISORDER (RBD), POSSIBLE PREDICTORS OF CONVERSION TO DIFFERENT TYPES OF ALPHA-SINUCLEINOPATHIES
C. Gutierrez Muñoz (Spain)

5:45pm – 6:00pm
ENVELOPE ANALYSIS OF ELECTROMYOGRAM IN REM SLEEP BEHAVIOR DISORDER PATIENTS
D. Espinoza (Chile)

6:00pm – 6:15pm
STRIATAL DYSFUNCTION AND DIMINISHED FUNCTIONAL CONNECTIVITY IN IDIOPATHIC REM SLEEP BEHAVIOR DISORDER WITH SUBTLE MOTOR ALTERATION
G. Yamada (Japan)

6:15pm – 6:30pm
INCREASED SERUM CYSTATIN C IN PARKINSON’S DISEASE WITH OBJECTIVE SLEEP DISTURBANCE
K.-P. Xiong (China)

6:30pm – 6:45pm
DIAGNOSING REM SLEEP BEHAVIOUR DISORDER IN PARKINSON DISEASE WITHOUT A GOLD STANDARD: A LATENT CLASSES MODELS STUDY
M. Figorilli (France)

6:45pm – 7:00pm
FAMILIAL AGGREGATION OF REM SLEEP BEHAVIOR DISORDER AND NEURODEGENERATIVE BIOMARKERS: A CASE-CONTROL FAMILY STUDY
Y. Liu (Hong Kong)

S39 Obstructive sleep apnea severity and the role of oral appliances
5:30pm - 7:00pm I Terrace 1

Introduction
M. Braem (Belgium)

5:30pm - 5:35pm
Introduction
M. Braem (Belgium)

5:35pm - 5:55pm
Mild obstructive sleep apnoea: Clinical relevance and approaches to management
W. McNicholas (Ireland)

5:55pm - 6:15pm
Physiological traits related to obstructive sleep apnea and prediction of treatment response to an oral appliance
B. Edwards (Australia)

6:15pm - 6:35pm
Other clinical ways to identify predictors of success and analyze combination treatments and their role in the treatment with OAS
M. Braem (Belgium)

6:35pm - 6:55pm
OA vs CPAP: comparative effectiveness
P. Cistulli (Australia)

6:55pm - 7:00pm
Question and answer
M. Braem (Belgium)

O07 Narcolepsy Oral Abstract Presentations
5:30pm – 7:00pm I Meeting Hall V

5:30pm – 5:45pm
EVIDENCE FOR A NARCOLEPSY SPECTRUM DISORDER IN FAMILY MEMBERS OF PATIENTS WITH TYPE 1 NARCOLEPSY
P. Wang (China)

5:45pm – 6:00pm
MEASUREMENT OF NARCOLEPSY SYMPTOMS: THE NARCOLEPSY SEVERITY SCALE
I. Jaussent (France)

6:00pm – 6:15pm
A DOUBLE-BLIND, PLACEBO-CONTROLLED, RANDOMIZED-WITHDRAWAL, MULTICENTER STUDY OF THE EFFICACY AND SAFETY OF SODIUM OXYBATE IN PEDIATRIC SUBJECTS WITH NARCOLEPSY WITH CATAPLEXY
G. Plazzi (Italy)

6:15pm – 6:30pm
NOCTURNAL REM WITHOUT ATONIA, A DIAGNOSTIC BIOMARKER FOR PEDIATRIC NARCOLEPSY
S. Bin-Hasan (Canada)

6:30pm – 6:45pm
WIDESPREAD WHITE MATTER CONNECTIVITY ABNORMALITIES IN NARCOLEPSY TYPE 1 PATIENTS: A DIFFUSION TENSOR IMAGING STUDY
J.K. Gool (The Netherlands)

6:45pm – 7:00pm
A STANDARDIZED TEST TO DOCUMENT CATAPLEXY
F. Pizza (Italy)

T03 Cardiopulmonary resuscitation for sleep technologists part 2
5:30pm - 7:00pm I Club H

Chairs:
S. Keenan (United States), O. Ludka (Czech Republic)

Speakers:
I. Cundrle Jr. (Czech Republic), L. Ruzek (Czech Republic), O. Ludka (Czech Republic)
24th Congress of the
European Sleep Research Society
Basel, Switzerland | 25 – 28 September 2018

For more information visit:
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K06 Sleep and Synaptic homeostasis
C. Cirelli (United States)

Keynote 8:00am - 9:00am I Congress Hall

S41 Sleep and sex: What can go wrong?
9:00am - 10:30am I Meeting Hall IV

Chairs:
C. Schenck (United States)

9:00am - 9:05am
Introduction
C. Schenck (United States)

9:05am - 9:25am
The basic science of sex physiology and how it can pathologically relate to sleep
M.L. Andersen (Brazil)

9:25am - 9:45am
Update and synthesis of the world literature on sexsomnia and ictal sexsomnia
C. Schenck (United States)

9:45am - 10:05am
Abnormal sexual behaviors associated with Kleine-Levin Syndrome
I. Arnulf (France)

10:05am - 10:25am
Forensics aspects of sexsomnia and review of legal cases
F. Ingravallo (Italy)

10:25am - 10:30am
Question and answer
C. Schenck (United States)

S42 Sleep dependent brain oscillations as early markers of neurodegeneration
9:00am - 10:30am I Meeting Hall V

Chairs:
J.-F. Gagnon (Canada)

9:00am - 9:05am
Introduction
J.-F. Gagnon (Canada)

9:05am - 9:25am
Sleep EEG features as prodromal markers of Parkinson’s disease dementia and Alzheimer’s disease
J.-F. Gagnon (Canada)

9:25am - 9:45am
Sleep and EEG profiles of amyloid- vs tau-expressing mouse models of dementia
B. Crouch (United Kingdom)

9:45am - 10:05am
Sleep EEG biomarkers of huntington’s disease: Contributions of age, sex, huntingtin (htt) gene and sleep-wake regulation
A. Lazar (United Kingdom)

10:05am - 10:25am
Changes in abnormal brain oscillations can predict the efficacy of therapeutics in huntington’s disease mice
S. Kantor (United Kingdom)

10:25am - 10:30am
Question and answer
J.-F. Gagnon (Canada)

S43 Sleep related learning and behavioural functioning in children with developmental disorders
9:00am - 10:30am I North Hall

Chairs:
D. Dimitriou (United Kingdom)

9:00am - 9:05am
Introduction
D. Dimitriou (United Kingdom)

9:05am - 9:25am
Sleep and cognition in children with down syndrome
G. Spanò (United Kingdom)

9:25am - 9:45am
Poor sleep in childhood ADHD and its impact on daytime functioning
F. Knight (United Kingdom)

9:45am - 10:05am
Poor sleep and atypical learning trajectories in Williams syndrome
J. Hayton (United Kingdom)

10:05am - 10:25am
Sleep related learning patterns are different in different developmental disorders
D. Dimitriou (United Kingdom)

10:25am - 10:30am
Question and answer
D. Dimitriou (United Kingdom)

S44 Myofunctional therapy as an adjunct treatment for sleep disordered breathing: Validation of screening tools and objective measurements of progress for an emerging standard of care
9:00am - 10:30am I Club A and B

Chairs:
M. Moeller (United States), O. Bruni (Italy)

9:00am - 9:02am
Introduction
M. Moeller (United States)

9:02am - 9:19am
Evaluation and measurements of a 12 week orofacial myofunctional therapy program for sleep disordered children
D.K.-K. Ng (Hong Kong)

9:19am - 9:36am
Universal screening tools for speech pathologists: Orofacial myofunctional disorders as clinical markers for OSA
O. Bruni (Italy)
9:36am - 9:53am
Myofunctional therapy for adult snoring and OSA: Changes in tongue fat and airway in a RCT
E. Bianchini (Brazil)

9:53am - 10:10am
Myofunctional therapy and tongue tone in children with sleep disordered breathing
M. Pia Villa (Italy)

10:10am - 10:27am
Standardizing myofunctional exercises for children with residual OSAS
M. Evangelisti (Italy)

10:27am - 10:30am
Question and answer
O. Bruni (Italy)

S46 New approaches to studies of genetics of sleep and its disorders
9:00am - 10:30am | Meeting Hall 1B

Chairs:
A. Pack (United States)

9:00am - 9:02am
Introduction
A. Pack (United States)

9:02am - 9:19am
New strategies based on clinical sleep centers
E. Mignot (United States)

9:19am - 9:36am
Use of new approaches to mice
A. Pack (United States)

9:36am - 9:53am
Characterizing pleiotropic effects of genetic variation
O. Veatch (United States)

9:53am - 10:10am
Phenotypic approaches to sleep disorders
P. Cistulli (Australia)

10:10am - 10:27am
Understanding complex genetic interactions using machine learning
D. Mazzotti (United States)

10:27am - 10:30am
Question and answer
A. Pack (United States)

S47 Insomnia phenotypes: Identification and treatment response
9:00am - 10:30am | Club D and E

Chairs:
W. Wohlgemuth (United States)

9:00am - 9:05am
Introduction
W. Wohlgemuth (United States)

9:05am - 9:25am
Sleep architecture profiles in insomnia patients
W. Wohlgemuth (United States)

9:25am - 9:45am
Trait and life history profiles reveal stable insomnia subtypes
E. Van Someren (The Netherlands)

9:45am - 10:05am
Predictors of Insomnia severity index profiles among veterans with obstructive sleep apnea
D. Wallace (United States)

10:05am - 10:25am
Insomnia with objective short sleep duration: Impact on hypertension risk and insomnia treatment response
J. Edinger (United States)

10:25am - 10:30am
Question and answer
W. Wohlgemuth (United States)

S48 NON-PAP treatment of obstructive-sleep apnea in late teenagers and early adulthood: What can be done, orthodontia and surgery
9:00am - 10:30am | Terrace 1

Chairs:
C. Guilleminault (United States), P. Pirelli (Italy)

9:00am - 9:02am
Introduction
C. Guilleminault (United States)

9:02am - 9:19am
Role of dental devices, negative and positive responses – including long term-in young adults with OSA
M. Marklund (Sweden)

9:19am - 9:36am
Maxillo-mandibular advancement in young OSA adult, including long term results, positive and negative findings
C. C.-H. Lin (Taiwan)

9:36am - 9:53am
Bone to bone palatal expansion orthodontia and surgery in late teenagers and early adulthood: problems, complication, indications and results
B. Vande Vannet (Belgium)

9:53am - 10:10am
Transverse maxillary deficiency in obstructive sleep apnea syndrome (OSAS): Benefits of utilizing a palatine plate
T. Loncle (France)

10:10am - 10:27am
Distraction Osteogenesis Maxillary Expansion (DOME)
S. Liu (United States)

10:27am - 10:30am
Question and answer
P. Pirelli (Italy)
T04 Group scoring discussion: Respiratory related breathing disorders
9:00am - 10:30am I Club H

Chairs:
T. Penzel (Germany)
9:00am - 9:10am
Introduction
T. Penzel (Germany)
9:10am - 9:50am
Recommended and alternative sensors in PSG
A. Obeidat (United States)
9:50am - 10:30am
AASM guidelines for scoring sleep stages in adults
A. Obeidat (United States)

K07 Sleep: from single neuron to behavior
M. Tafti (Switzerland)
Keynote 10:30am - 11:15am I Congress Hall

S49 Daytime sleepiness: Newest research results and experts’ opinions
10:30am - 12:00pm I Meeting Hall IV

Chairs:
A. Büttner-Teleaga (Germany)
10:30am - 10:35am
Introduction
A. Büttner-Teleaga (Germany)
10:35am - 10:55am
Sleep disorders and excessive sleepiness: Who needs treatment for safety critical tasks
M. Howard (Australia)
10:55am - 11:15am
EDS in kleine-levin syndrome – an update about the new research
F. Han (China)
11:15am - 11:35am
Experts’ opinions: EDS and its effects hypersomnia and neurological diseases
S. Kotterba (Germany)
11:35am - 11:55am
Experts’ opinions: EDS and its effects in sleep breathing disorders (e.g. OSA/CSA)
M. Orth (Germany)
11:55am - 12:00pm
Question and answer
A. Büttner-Teleaga (Germany)

S50 Multiple sclerosis, sleep and sleep disorders
10:30am - 12:00pm I Meeting Hall V

Chairs:
L. Ferini-Stramb (Italy)
10:30am - 10:32am
Introduction
L. Ferini-Stramb (Italy)

10:32am - 10:49am
Sleep-related motor disorders in MS
M. Manconi (Switzerland)
10:49am - 11:06am
EDS and narcolepsy-like phenotypes in MS and related disorders
C. Bassetti (Switzerland)
11:06am - 11:23am
Parasomnias and MS
G. Mayer (Germany)
11:23am - 11:40am
Imaging explaining sleep-disorders and fatigue in MS
G. Rizzo (Italy)
11:40am - 11:57am
The impact of drugs for MS on sleep
L. Ferini-Stramb (Italy)
11:57am - 12:00pm
Question and answer
L. Ferini-Stramb (Italy)

S51 Diagnosis, morbidity and treatment of pediatric OSA: What’s new?
10:30am - 12:00pm I North Hall

Chairs:
D. Gozal (United States), L. Kheirandish-Gozal (United States)
10:30am - 10:35am
Introduction
D. Gozal (United States)
10:35am - 10:55am
The morbidity of pediatric OSAS: The hidden iceberg
D. Gozal (United States)
10:55am - 11:15am
OSAS diagnosis: When PSG is relatively unavailable
H.-L. Tan (United Kingdom)
11:15am - 11:35am
Adenotonsillectomy for pediatric OSAS: The good, the bad and the ugly
M.L. Alonso-Alvarez (Spain)
11:35am - 11:55am
Non-surgical options for pediatric OSAS
L. Kheirandish-Gozal (United States)
11:55am - 12:00pm
Question and answer
L. Kheirandish-Gozal (United States)

S52 Dynamic circuit connecting the circadian clock and sleep/wakefulness
10:30am - 12:00pm I Club A and B

Chairs:
K.-i. Honma (Japan)
10:30am - 10:35am
Introduction
K.-i. Honma (Japan)
10:35am - 10:55am
Oscillators in the suprachiasmatic nucleus regulating seasonality in sleepwake rhythm
S. Honma (Japan)

10:55am - 11:15am
Responsiveness of the circadian system to environmental challenge during the lifespan
A. Sumova (Czech Republic)

11:15am - 11:35am
ZBTB20 acts as a circadian output regulator of activity rhythms
Y. Xu (China)

11:35am - 11:55am
Integration: dynamic circuits connecting the circadian clock and sleep/wakefulness
K.-i. Honma (Japan)

11:55am - 12:00pm
Question and answer
K.-i. Honma (Japan)

S53 How the reticular activating system (RAS) modulates perception and movement
10:30am - 12:00pm I Meeting Hall 1A

Chairs:
S. Datta (United States)

10:30am - 10:32am
Introduction
S. Datta (United States)

10:32am - 10:49am
Mechanisms modulating the control of waking vs REM sleep
S. Datta (United States)

10:49am - 11:06am
RAS interactions with cerebellar motor control
E. Scamati (Italy)

11:06am - 11:23am
Gamma band coherence during waking and REM sleep
P. Torterolo (Uruguay)

11:23am - 11:40am
Effects of deep brain stimulation of the RAS in parkinson’s disease
P. Mazzone (Italy)

11:40am - 11:57am
Gamma activity and its modulation of arousal and movement
E. Garcia-Rill (United States)

11:57am - 12:00pm
Question and answer
S. Datta (United States)

S54 Menopause matters: Hormones, hot flashes and sleep disorders
10:30am - 12:00pm I Meeting Hall 1B

Chairs:
F. Baker (United States)

10:30am - 10:35am
Introduction
F. Baker (United States)

10:35am - 10:55am
Mechanisms underlying the influence of female sex steroids on sleepwake regulatory systems
J. Mong (United States)

10:55am - 11:15am
Why does sleep quality decrease during the menopausal transition?
F. Polo-Kantola (Finland)

11:15am - 11:35am
Impact of hot flashes and hormone fluctuations on sleep in perimenopausal women with insomnia
F. Baker (United States)

11:35am - 11:55am
The role of menopause in the development of sleep-disordered breathing in women
E. Lindberg (Sweden)

11:55am - 12:00pm
Question and answer
F. Baker (United States)

S55 OSA treatment in adult [men and women] non compliant with nasal PAP, indication and potential treatment: Surgical approaches and nerve implantation
10:30am - 12:00pm I Terrace 1

Chairs:
C.C.-H. Lin (Taiwan), S.-W. Kim (Republic of Korea)

10:30am - 10:35am
Introduction
C.C.-H. Lin (Taiwan)

10:35am - 10:55am
Computer aided surgical simulation for maxillomandibular advancement
S.S. Hsu (Taiwan)

10:55am - 11:15am
Maxillomandibular advance with CCW rotation for surgical treatment of OSA
J. Cifuentes (Chile)

11:15am - 11:35am
European experience with different concepts of upper airway neurostimulation
J. Maurer (Germany)

11:35 - 11:45
Patient screening, selection and surgical device implantation
M. Boon (United States)
11:45am - 11:55am
Transcutaneous electrical stimulation of the upper airway dilator muscles in patients with obstructive sleep apnoea
J. Steier (United Kingdom)

11:55am - 12:00pm
Question and answer
S.-W. Kim (Republic of Korea)

**O08 REM behavior disorders oral abstract presentations**

10:30am – 12:00pm I Club D and E

**INCREASED EEG DESYNCHRONIZATION DURING PHASIC REM SLEEP IN IDIOPATHIC REM SLEEP BEHAVIOR DISORDER**
J.-S. Sunwoo (Republic of Korea)

10:45am – 11:00am
SEVERITY OF REM SLEEP MUSCLE ATONIA LOSS IN IDIOPATHIC REM SLEEP BEHAVIOUR DISORDER CORRELATES WITH THE DEGREE OF ABNORMALITIES IN THE VESTIBULAR EVOKED MYOGENIC POTENTIALS
M. Puligheddu (Italy)

11:00am – 11:15am
INVESTIGATING BIOMARKERS FOR PREDICTING THE CONVERSION TO ALPHA-SYNUCLEINOPATHIES IN PATIENTS AFFECTED BY REM SLEEP BEHAVIOR DISORDER: A COMPREHENSIVE ANALYSIS OF CLINICAL, NEUROPSYCHOLOGICAL, NEUROIMAGING, AND CEREBROSPINAL-FLUID DATA
C. Liguori (Italy)

11:15am – 11:30am
ABNORMAL ACTIVITY IN THE REWARD SYSTEM IN PARKINSON’S DISEASE PATIENTS WITH RAPID EYE MOVEMENTS SLEEP BEHAVIOR DISORDER
C. Beal (France)

11:30am – 11:45am
PREVALENCE AND ASSOCIATED FACTORS FOR REM SLEEP BEHAVIOUR DISORDER: A NATION-WIDE POPULATION-BASED STUDY OF 30,097 CANADIAN ADULTS
C. Yao (Canada)

11:45am – 12:00pm
INSOMNIA AS A SOMATIC REPRESENTATION OF ANXIETY IN THE SYMPTOMATOLOGY OF DEPRESSION
T. Yoshiike (Japan)

10:45am – 11:00am
UPPER AIRWAY STIMULATION EFFECTIVELY TREATS REM OBSTURCTIVE SLEEP APNEA
F. Luyster (United States)

11:00am – 11:15am
CPAP WITHDRAWAL ON 24-HOUR BLOOD PRESSURE AND ARTERIAL STIFFNESS IN WOMEN AND MEN WITH OBRSTURCTIVE SLEEP APNEA. A RANDOMIZED CONTROLLED TRIAL
C. Sahlin (Sweden)

11:15am – 12:00pm
K08 Restless legs syndrome: Towards a new concept of the disease
J. Winkelmann (Germany)

**Bioproject Satellite Symposium: Cataplexy: From fundamentals to the clinic**

12:30pm - 2:00pm I Congress Hall

**Keynote** 11:15am - 12:00pm I Congress Hall

12:30pm – 12:36pm
Cataplexy: From fundamentals to the clinic
G.J. Lammers (The Netherlands)

12:36pm – 1:04pm
NEUROBIOLOGY OF REM SLEEP AND CATAPLEXY: A SHORT UPDATE
C. Peyron (France)

1:04pm – 1:32pm
Histamine neurones, REM sleep and cataplexy
J.-C. Schwartz (France)

1:32pm – 2:00pm
Cataplexy data: HARMONY CTP and HARMONY III clinical trials data
Z. Szakacs, Budapest (Hungary)
NOX Medical Industry Workshop: Evolution of sleep medicine – challenging the status quo
12:30pm – 1:15pm I North Hall

Opening Remarks
L. Parrino (Italy)
12:45pm – 1:00pm
Evolution of Sleep medicine part 1
A. Pack (United States)
1:00pm – 1:15pm
Evolution of Sleep medicine part 2
E. Sif Arnardottir (Iceland)

S56 What can we learn from recent large negative clinical trials in sleep-disordered breathing?
2:00pm - 3:30pm I Congress Hall
Chairs:
A. Pack (United States)

Introduction
A. Pack (United States)
2:05pm - 2:05pm
Critique of SERVE-HF study
D. Bradley (Canada)
2:05pm - 2:45pm
Commentary on APPLES study
C. Kushida (United States)
2:45pm - 3:05pm
The CHAT study
D. Gozal (United States)
3:05pm - 3:25pm
Why was the SAVE study negative?
D. McEvoy (Australia)
3:25pm - 3:30pm
Question and answer
A. Pack (United States)

S57 Ascertainments of RBD and its clinical implications for neurodegeneration
2:00pm - 3:30pm I Meeting Hall IV
Chairs:
C. Trenkwalder (Germany)

Introduction
C. Trenkwalder (Germany)
2:02pm - 2:19pm
Assessment of RBD with questionnaires and scales in the population: How valid reliable are they?
Y.K. Wing (Hong Kong)
2:19pm - 2:36pm
Assessment of prodromal RBD using vPSG – earlier rather than early?
F. Sixel-Döring (Germany)
2:36pm - 2:53pm
Worldwide cohorts address RBD for prodromal parkinson – is it worth the effort?
C. Trenkwalder (Germany)
2:53pm - 3:10pm
RBD – the non-converters: What do they tell us?
B. Höglinger (Austria)
3:10pm - 3:27pm
Ethical aspects of RBD prognostic counseling – what do patients want and need to know?
E. St. Louis (United States)
3:27pm - 3:30pm
Question and answer
C. Trenkwalder (Germany)

S58 Environmental challenges: The impact of artificial light on sleep and circadian biology
2:00pm - 3:30pm I Meeting Hall V
Chairs:
A. Skeldon (United Kingdom)

Introduction
A. Skeldon (United Kingdom)
2:00pm - 2:05pm
Measuring and specifying lighting for the circadian system
M. Figuero (United States)
2:05pm - 2:25pm
Assessing the impact of light-at-night on circadian function and mood
A. Coogan (Ireland)
2:25pm - 2:45pm
The modern versus natural lighting environment and its impact on sleep and circadian biology
K. Wright (United States)
3:05pm - 3:25pm
The interaction of light and social constraints with sleep and circadian biology
A. Skeldon (United Kingdom)
3:25pm - 3:30pm
Question and answer
A. Skeldon (United Kingdom)

S59 Developmental aspects of sleep’s influence on memory and general cognitive abilities
2:00pm - 3:30pm I North Hall
Chairs:
K. Hoedlmoser (Austria), O. Bruni (Italy)

Introduction
K. Hoedlmoser (Austria)
2:00pm - 2:05pm
The impact of sleep on the consolidation of newly acquired word meanings in infants (9-16 months)
I. Wilhem (Switzerland)
2:25pm - 2:45pm
Sleep and cognition in preschool-age (3-5 yrs) children – a nap study
R. Spencer (United States)
2:45pm - 3:05pm
Sleep and cognition from elementary school (8-10yrs) up to adolescence (14-16yrs): A longitudinal approach
K. Hoedlmoser (Austria)

3:05pm - 3:25pm
Sleep and cognition in early adolescence (12-14 yrs): Results from a twin study
L. Tarokh (Switzerland)

3:25pm - 3:30pm
Question and answer
O. Bruni (Italy)

S60 Sleep loss and socio-emotional functioning
2:00pm - 3:30pm I Club A and B

Chairs:
J. Axelsson (Sweden)

2:00pm - 2:05pm
Introduction
J. Axelsson (Sweden)

2:05pm - 2:30pm
Sleep in relation to neural systems: implications for emotion regulation and psychopathology
P. Franzén (United States)

2:30pm - 2:55pm
The effects of sleep loss on social perception and interpersonal interactions
T. Sundelin (Sweden)

2:55pm - 3:20pm
Emotion and face recognition in insomnia
L. Beattie (United Kingdom)

2:20pm - 3:30pm
Question and answer
J. Axelsson (Sweden)

S61 Idiopathic hypersomnia: A neglected disorder
2:00pm - 3:30pm I Meeting Hall 1A

Chairs:
I. Arnulf (France)

2:00pm - 2:05pm
Introduction
I. Arnulf (France)

2:05pm - 2:25pm
Phenotypes of idiopathic hypersomnia
K. Sonka (Czech Republic)

2:25pm - 2:45pm
Idiopathic hypersomnia: A female disorder?
I. Arnulf (France)

2:45pm - 3:05pm
New insights into the mechanisms of hypersomnia
D. Rye (United States)

3:05pm - 3:25pm
Treatments of idiopathic hypersomnia
G. Mayer (Germany)

3:25pm - 3:30pm
Question and answer
I. Arnulf (France)

S62 Sleep slow waves: From cells to consciousness
2:00pm - 3:30pm I Meeting Hall 1B

Chairs:
R. Huber (Switzerland)

2:00pm - 2:02pm
Introduction
R. Huber (Switzerland)

2:02pm - 2:19pm
Local and global dynamics of cortical slow waves in mice
V. Vyazovskiy (United Kingdom)

2:19pm - 2:36pm
How do slow waves affect sensory responses? Insights from intracranial electrophysiology and scalp EEG
Y. Nir (Israel)

2:36pm - 2:53pm
Mapping of EEG slow waves in health and disease
R. Huber (Switzerland)

2:53pm - 3:10pm
Slow-waves, brain complexity and consciousness
M. Massimini (Italy)

3:10pm - 3:27pm
Local sleep changes in sleep and psychiatric disorders
R. Benca (United States)

3:27pm - 3:30pm
Question and answer
R. Huber (Switzerland)

S63 OSA, upper-airway surgery and MAD: Techniques to select location, surgical techniques to be used, personalization of mandibular-advancement-device
2:00pm - 3:30pm I Terrace 1

Chairs:
N. Montesdeoca (Spain), C.C.-H. Lin (Taiwan)

2:00pm - 2:02pm
Introduction
N. Montesdeoca (Spain)

2:02pm - 2:19pm
Advance in surgical technique for adenotonsillectomy
S.-W. Kim (Republic of Korea)

2:19pm - 2:36pm
Protocol for identifying level of obstruction: DISE vs. sleep MRI
P.V. Krishnan (India)

2:36pm - 2:53pm
Virtual surgery and simulation analyses on upper airway of obstructive sleep apnea patients
I.H. Lo (Taiwan)

2:53pm - 3:10pm
Selected surgical techniques for palatal and pharyngeal obstruction

View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
P. Baptista (Spain)
3:10pm - 3:27pm
Analysis of the movements of the mandible and hyoid bone in the treatment of OSA with MAD
J. Vila (Spain)
3:27pm - 3:30pm
Question and answer
C.C.-H. Lin (Taiwan)

O10 Restless legs syndrome (RLS/WED) oral abstract presentations
2:00pm – 3:30pm I Club D and E
2:00pm – 2:15pm
VALIDATION OF AN AUTOMATIC SCORING ALGORITHM FOR THE ANALYSIS OF PERIODIC LIMB MOVEMENTS ACCORDING TO THE WASM2016 GUIDELINES
D. Alvarez-Estevez (The Netherlands)
2:15pm – 2:30pm
ASSOCIATION OF BTBD9 AND MAP2K5/SKOR1 WITH RESTLESS LEGS SYNDROME IN CHINESE POPULATION
G. Li (China)
2:30pm – 2:45pm
COMORBIDITIES TO RESTLESS LEGS SYNDROME - RESULTS FROM THE DANISH BLOOD DONOR STUDY
M. Didriksen (Denmark)
2:45pm – 3:00pm
CIRCADIAN VARIATION OF FLEXOR WITHDRAWAL AND CROSSED EXTENSOR REFLEXES IN RESTLESS LEGS SYNDROME
C. Dafkin (South Africa)
3:00pm – 3:15pm
POLYSONMOGRAPHIC FINDINGS IN RESTLESS LEGS SYNDROME (RLS) PATIENTS WITH SEVERE AUGMENTATION
M.-L. Muntean (Germany)
3:15pm – 3:30pm
USING THE BEHAVIORS INDICATOR TEST-RESTLESS LEGS (BIT-RL) TO DIAGNOSE RESTLESS LEGS SYNDROME (RLS) IN ALZHEIMER’S PATIENTS WITH DEMENTIA AND NOCTURNAL AGITATED BEHAVIORS (ADNA)
K. Richards (United States)

T05 Breathing re-education to achieve nasal and normal minute volume for sleep
2:00pm - 3:30pm I Club H
Chairs:
S. Keenan (United States), O. Ludka (Czech Republic)
Speakers:
P. McKeown (United Kingdom)

K09 Chronic insomnia and the immune response
M.R. Irwin (United States)
Keynote 3:30pm - 4:15pm I Congress Hall

S64 Understanding the pathophysiology of RBD and REM sleep
3:30pm - 5:00pm I Meeting Hall IV
Chairs:
R. Ferri (Italy)
3:30pm - 3:35pm
Introduction
R. Ferri (Italy)
3:35pm - 3:55pm
REM sleep circuitry abnormalities in RBD
J. Peever (Canada)
3:55pm - 4:15pm
Brain neuroimaging abnormalities in patients with RBD
D. Arnaldi (Italy)
4:15pm - 4:35pm
Electromyographic correlates in RBD
P. Jennum (Denmark)
4:35pm - 4:55pm
Spectral EEG changes during REM sleep in RBD and their modifications by clonazepam
R. Ferri (Italy)
4:55pm - 5:00pm
Question and answer
R. Ferri (Italy)

S65 Sleep-related hypermotor epilepsy (SHE): From the basic mechanisms to the differential diagnosis
3:30pm - 5:00pm I Meeting Hall V
Chairs:
L. Nobili (Italy), F. Provini (Italy)
3:30pm - 3:35pm
Introduction
F. Provini (Italy)
3:35pm - 3:55pm
Physiopathological mechanisms of sleep-related seizures
L. Nobili (Italy)
3:55pm - 4:15pm
From nocturnal paroxysmal dystonia to SHE
F. Provini (Italy)
4:15pm - 4:35pm
Semeiological and anatomoclinical correlation of sleep-related hypermotor seizures
P. Kahane (France)
4:35pm - 4:55pm
SHE and NREM parasomnias: The key features for the differential diagnosis
C. Derry (United Kingdom)
4:55pm - 5:00pm
Question and answer
L. Nobili (Italy)
S66 Deficient sleep in children and adolescents: Generating solutions for a global epidemic
3:30pm - 5:00pm | North Hall

Chairs:
J. Owens (United States)

3:30pm - 3:33pm
Introduction
J. Owens (United States)

3:33pm - 3:50pm
Overview of a global epidemic
Y.K. Wing (Hong Kong)

3:50pm - 4:07pm
School-based sleep education in Canada
R. Gruber (Canada)

4:07pm - 4:24pm
Applied technology for delivering sleep health messages
M. Quante (Germany)

4:24pm - 4:41pm
School-based educational interventions in the UK
C. Espie (United Kingdom)

4:41pm - 4:58pm
Healthy school start times: A US perspective
J. Owens (United States)

4:58pm - 5:00pm
Question and answer
J. Owens (United States)

S67 Respiratory muscle function and intervention of upper airway in patients with sleep disordered breathing
3:30pm - 5:00pm | Club A and B

Chairs:
Y.-M. Luo (China)

3:30pm - 3:35pm
Introduction
Y.-M. Luo (China)

3:35pm - 3:55pm
Respiratory muscle reflex responses to the onset of flow limitation in obstructive sleep apnoea
P. Catcheside (Australia)

3:55pm - 4:15pm
Neural respiratory drive in patients with COPD, OSA and overlap syndrome
Y.-M. Luo (China)

4:15pm - 4:35pm
Principle, feasibility and efficacy of transvenous nerve stimulation for treatment of sleep apnea
X. Zhang (China)

4:35pm - 4:55pm
Transcutaneous electrical stimulation of the upper airway dilator muscles in patients with obstructive sleep apnoea
J. Steier (United Kingdom)

4:41pm - 4:58pm
Predicting the need for NIV in ALS
M. Polkey (United Kingdom)

4:58pm - 5:00pm
Question and answer
Y.-M. Luo (China)

S68 Sleep disorders in post-menopausal women: The impact on health
3:30pm - 5:00pm | Meeting Hall 1A

Chairs:
R. Silvestri (Italy)

3:30pm - 3:35pm
Introduction
R. Silvestri (Italy)

3:35pm - 3:55pm
Treatment of menopausal insomnia
P. Polo-Kantola (Finland)

3:55pm - 4:15pm
Effects of the postmenopausal cardio-respiratory changes on woman health and metabolism
M. Bonsignore (Italy)

4:15pm - 4:35pm
Sleep rhythms alterations in elderly women and their impact on cognitive decline
B.M. Guarneri (Italy)

4:35pm - 4:55pm
The impact of RLS on women cardiovascular health and quality of life
M. Manconi (Switzerland)

4:55pm - 5:00pm
Question and answer
R. Silvestri (Italy)

S69 Effects of sleep deprivation: Novel agents and mechanisms
3:30pm - 5:00pm | Meeting Hall 1B

Chairs:
T. Porkka-Heiskanen (Finland)

3:30pm - 3:35pm
Introduction
T. Porkka-Heiskanen (Finland)

3:35pm - 3:55pm
Astrocytes mediate the reshaping of cortical synapses in response to sleep loss
M. Bellesi (Italy)

3:55pm - 4:15pm
Microglia and sleep: The effects of sleep deprivation on microglial function
H.-K. Wigren (Finland)

4:15pm - 4:35pm
Sleep loss and the microbiome
K. Wright (United States)
4:35pm - 4:55pm  
Sleep and circadian metabolomics: Effect of sleep deprivation  
D. Skene (Switzerland)

4:55pm - 5:00pm  
Question and answer  
T. Porkka-Heiskanen (Finland)

O11 Sleep breathing disorders oral abstract presentations  
3:30pm – 5:00pm I Club D and E

3:30pm – 3:45pm  
REAL-TIME IDENTIFICATION OF UPPER AIRWAY OCCLUSION USING ELECTRICAL IMPEDANCE TOMOGRAPHY IN PATIENTS WITH OBSTRUCTIVE SLEEP APNEA  
S.-W. Kim (Republic of Korea)

3:45pm – 4:00pm  
VALIDATION OF THREE-DIMENSIONAL AIRWAY IMAGING FOR SCREENING FOR SLEEP APNEA IN PEDIATRIC PATIENTS  
A. Masoud (Saudi Arabia)

4:00pm – 4:15pm  
DIFFERENCES IN THE DURATION OF OBSTRUCTIVE SLEEP APNEA EVENTS AMONG HIGHLAND TIBETANS AND HANS AND LOWLAND HANS AT LOW ALTITUDE  
L. Tan (China)

4:15pm – 4:30pm  
PREDICTING RESPONSE TO OXYGEN THERAPY IN OBSTRUCTIVE SLEEP APNEA PATIENTS USING VENTILATORY CHEMOREFLEX TEST DURING WAKEFULNESS  
D. Wang (Australia)

4:30pm – 4:45pm  
CLINICAL VALIDATION OF A DIAGNOSTIC PATCH FOR THE DETECTION OF SLEEP APNEA  
M. Merchant (United States)

4:45pm – 5:00pm  
RISK FACTORS FOR RESPIRATORY COMPLICATIONS AFTER ADENOTONSILLECTOMY IN OSA CHILDREN  
S. Weber (Brazil)

4:00pm – 4:15pm  
SLEEP SPINDLE ACTIVITY SIGNIFICANTLY CORRELATES WITH IMPLICIT STATISTICAL LEARNING CONSOLIDATION IN OBSTRUCTIVE SLEEP APNEA PATIENTS  
D. Stevens (Australia)

4:15pm – 4:30pm  
AGE-DEPENDENT EFFECTS OF SLEEP DEPRIVATION ON TASK PERFORMANCE AND MIND WANDERING  
J. Schwarz (Sweden)

4:30pm – 4:45pm  
EMOTIONAL WORKING MEMORY IN OLDER ADULTS AFTER TOTAL SLEEP DEPRIVATION  
A. Gerhardsson (Sweden)

4:45pm – 5:00pm  
IMPACT OF MILD COGNITIVE IMPAIRMENT ON DREAM MENTATION IN PARKINSON’S DISEASE  
M. Roussel (France)

O13 Basic research oral abstract presentations  
3:30pm – 5:00pm I Club H

3:30pm – 3:45pm  
ON THE EFFECTS OF TWO VERSIONS OF SLOW WAVE SLEEP DEPRIVATION IN THE RELATION TO REM SLEEP  
L. Maisuradze (Georgia)

3:45pm – 4:00pm  
EEG SIGNATURES OF BRAIN MATURATION IN CHILDREN: AGE-RELATED AND ACROSS-NIGHT DYNAMICS IN SPATIAL PROPAGATION OF SLOW OSCILLATIONS  
S. Kurth (Switzerland)

4:00pm – 4:15pm  
QUANTIFICATION OF CHANGES IN GLUTAMATE LEVELS IN HEALTHY YOUNG ADULTS ACROSS THE SLEEP WAKE CYCLE USING PROTON MAGNETIC RESONANCE SPECTROSCOPY  
C. Volk (Switzerland)

4:15pm – 4:30pm  
THE EFFECTS OF ENERGY SUBSTITUTION DURING SLEEP DEPRIVATION ON THE FOLLOWING REBOUND SLEEP  
Z. Lelkes (Hungary)

4:30pm – 4:45pm  
MOLECULAR PROFILING OF THE LATERAL HYPOTHALAMIC NEURONS IDENTIFIED MOLECULES FOR DISEASE AND DEVELOPMENT  
A. Seifinejad (Switzerland)

4:45pm – 5:00pm  
SLEEP RESTRICTION INCREASES TELOMERE LENGTH IN SKIN OF RATS  
R. Gimenes Albuquerque (Brazil)

K10 Treating sleep and circadian problems: A transdiagnostic approach  
A. Harvey (United States)

Keynote 4:15pm - 5:00pm I Congress Hall
S71 Sleep, clocks and neurodegeneration
5:30pm - 7:00pm I Meeting Hall IV
Chairs:
A. Videnovic (United States)

Introduction
A. Videnovic (United States)
5:35pm - 5:55pm
Sleep and circadian homeostasis – implications for brain health
P. Zee (United States)
5:55pm - 6:15pm
Sleep, circadian clocks and alzheimer’s disease
E. Musiek (United States)
6:15pm - 6:35pm
Circadian and sleep dysregulation in Parkinson’s disease
A. Videnovic (United States)
6:35pm - 6:55pm
Disruption of sleep and circadian timing in huntington’s disease
J. Morton (United Kingdom)
6:55pm - 7:00pm
Question and answer
A. Videnovic (United States)

S72 The duality of sleep movement
5:30pm - 7:00pm I Meeting Hall V
Chairs:
J.J. Askenasy (Israel)

Introduction
J.J. Askenasy (Israel)
5:32pm - 5:49pm
The dual phenomenon
J.J. Askenasy (Israel)
5:49pm - 6:06pm
Motor control and dyscontrol in sleep
S. Chokroverty (United States)
6:06pm - 6:23pm
Sleep in Parkinson’s disease: Updates from animal experiments
S. Nishino (United States)
6:23pm - 6:40pm
Sleep-related muscle contractions with pain
T. Mano (Japan)
6:40pm - 6:57pm
Arousal, excitation and inhibition in sleep, related to movements a new concept
R. Allen (United States)
6:57pm - 7:00pm
Question and answer
J.J. Askenasy (Israel)

S73 Practical aspect of pediatric sleep medicine
5:30pm - 7:00pm I North Hall
Chairs:
N. Simakajornboon (United States)

Introduction
N. Simakajornboon (United States)
5:30pm - 5:32pm
Sleep apnea and GH therapy in Prader Willi syndrome
A. Salvatoni (Italy)
5:49pm - 6:06pm
Obesity and OSA in children
H. Sawnani (United States)
6:06pm - 6:23pm
CPAP initiation and adherence in children with OSA
N. Simakajornboon (United States)
6:23pm - 6:40pm
The challenge of opening a pediatric sleep clinic in an Eastern European country
M. Oros (Romania)
6:40pm - 6:57pm
Headache related to sleep disordered breathing in children with neuromuscular disease (case report)
A. Lupusor (Republic of Moldova)
6:57pm - 7:00pm
Question and answer
N. Simakajornboon (United States)

S74 Extracting sleep breathing phenotypes from lab and home data
5:30pm - 7:00pm I Club A and B
Chairs:
R.J. Thomas (United States)

Introduction
R.J. Thomas (United States)
5:30pm - 5:35pm
More than airway closure: Pathophysiological, polysomnographic and clinical phenotypes of OSA
W. Randerath (Germany)
5:55pm - 6:15pm
Pharmacotherapeutic options in relation to various proposed phenotypes
J. Hedner (Sweden)
6:15pm - 6:35pm
Beyond the male obese sleepy patient: Clinical phenotypes and biomarkers in obstructive sleep apnoea
D. Pevernagie (Belgium)
6:35pm - 6:55pm
Success and failure biomarkers during home apnea therapy
R.J. Thomas (United States)
6:55pm - 7:00pm
Question and answer
R.J. Thomas (United States)
S75 Sleep and mental health in a changing society
5:30pm - 7:00pm I Meeting Hall 1A

Chairs:
N. Glozier (Australia)

5:30pm - 5:32pm
Introduction
N. Glozier (Australia)

5:32pm - 5:49pm
Sleep disturbance and mental health in the community: Symptom patterns and trajectories
M. Müller (Switzerland)

5:49pm - 6:06pm
Working conditions and sleep - not all bad news
T. Lallukka (Finland)

6:06pm - 6:23pm
Neighborhood and sleep: How bad for you is noise?
S. Øverland (Norway)

6:23pm - 6:40pm
Where we live matters for our sleep: Neighborhood social environment and objective sleep measures
G. Simonelli (United States)

6:40pm - 6:57pm
How has technology affected our sleep over the past few decades?
N. Glozier (Australia)

6:57pm - 7:00pm
Question and answer
N. Glozier (Australia)

S76 Sleep, slow waves and brain temperature: Insights from hibernators
5:30pm - 7:00pm I Meeting Hall 1B

Chairs:
R. Amici (Italy)

5:30pm - 5:35pm
Introduction
R. Amici (Italy)

5:35pm - 5:55pm
Hypothermic states and their relation to slow wave sleep
T. de Boer (The Netherlands)

5:55pm - 6:15pm
Slow wave morphology during sleep after daily torpor
V. Vyazovskiy (United Kingdom)

6:15pm - 6:35pm
Seasonal rhythm in adenosine A1 receptor signaling in hibernation
K. Drew (United States)

6:35pm - 6:55pm
Slow wave sleep and torpor; insights from a non-hibernator
M. Cerri (Italy)

6:55pm - 7:00pm
Question and answer
R. Amici (Italy)

S77 Young Investigator: Sleep research in respiratory sleep medicine
5:30pm - 7:00pm I Club D and E

5:30pm – 5:45pm
WHY IS OBSTRUCTIVE SLEEP APNEA IN PEOPLE WITH RESISTANT HYPERTENSION MISSED SO OFTEN - A CLINICAL AND POLYSOMNOGRAPHIC CASE-CONTROLLED STUDY
A. Gupta (India)

5:45pm – 6:00pm
CARDIAC BIOMARKERS IN PATIENTS WITH OBSTRUCTIVE SLEEP APNEA SYNDROME AND HEART FAILURE WITH PRESERVED EJECTION FRACTION
I. Andreieva (Ukraine)

6:00pm – 6:15pm
HYPOCAPNIA HAS MINIMAL INFLUENCE ON GENIOGLOSSUS MUSCLE AFTER-DISCHARGE ELICITED BY AROUSAL FROM SLEEP IN HEALTHY INDIVIDUALS
J. Cori (Australia)

6:15pm – 6:30pm
IMPACT OF INTERMITTENT HYPOXIA ON CARDIOVASCULAR REMODELING IN A MURINE MODEL OF SLEEP APNEA: EFFECT OF AGE
A.L. Castro-Grattoni (Spain)

6:30pm – 6:45pm
DOES MATERNAL SLEEP APNOEA AFFECT CHILDHOOD HEALTH AND EDUCATIONAL OUTCOMES? A LONGITUDINAL STUDY USING POPULATION RECORD LINKAGE
Y.S. Bin (Australia)

6:45pm – 7:00pm
EFFECTS OF MORPHINE ON THE PHENOTYPIC CAUSES OF OBSTRUCTIVE SLEEP APNEA
R. Tomazini Martins (Australia)

O14 Aging and excessive daytime sleepiness oral abstract presentations
5:30pm – 7:00pm I Terrace 1

5:30pm – 5:45pm
THE EFFECTS OF CANNABIS ON VIGILANCE AND SIMULATED DRIVING
S. Hartley (France)

5:45pm – 6:00pm
REVISED DIAGNOSTIC CRITERIA FOR IDIOPATHIC HYPERSOMNIA: A 32-HOUR BED-REST PROTOCOL
E. Evangelista (France)

6:00pm – 6:15pm
RAPID EYE MOVEMENTS IN REM SLEEP FEATURES AS BIOMARKER OF MATURITY IN HEALTHY INFANTS
M. Merino-Andreu (Spain)

6:15pm – 6:30pm
LESS SWS, REM SLEEP AND MORE WASO ARE ASSOCIATED WITH GREATER DEPRESSION AND POORER TIME-BASED PROSPECTIVE MEMORY IN COMMUNITY-DWELLING OLDER ADULTS
E. Hodgson (Australia)
ASSOCIATION BETWEEN SLEEP SLOW WAVE ACTIVITY AND BRAIN STRUCTURE DURING ADOLESCENCE
A. Goldstone (United States)

6:45pm – 7:00pm
SLEEP DEPRIVATION MODIFIES THE USUAL BEHAVIOR OF ALPHA OSCILLATORY ACTIVITY DURING COGNITIVE TASKS
S. Montamat (Switzerland)

T06 The 3 C’s: Credentialing, certification, CECs
5:30pm - 7:00pm I Club H

Chairs:
S. Keenan (United States), O. Ludka (Czech Republic)

Speakers:
D. Lane (United States), D. Wolfe (United States)

RS1 Society Symposium ASRS and IASSA: Sleep medicine in Asia: Across the discipline
7:00pm - 9:00pm I Meeting Hall IV

Chairs:
H. Mallick (India), P.V. Krishnan (India)

7:00pm - 7:10pm
Introduction
H. Mallick (India)

7:10pm - 7:25pm
Translational research in insomnia using Yoga Nidra: Therapeutic model and results
K. Datta (India)

7:25pm - 7:40pm
Alternative therapies in Insomnia: An Insight
M. Tripathi (India)

7:40pm - 7:55pm
Sleep medicine in Japanese health care insurance system
S. Chiba (Japan)

7:55pm - 8:10pm
Certification system in Japanese sleep medicine
H. Kadotani (Japan)

8:10pm - 8:30pm
Protocol and surgical guidelines formulated by IASSA for OSA patients in Indian scenario
P.V. Krishnan (India)

8:30pm - 9:00pm
Panel discussion

RS2 Society Symposium ASA: Biomarkers for sleep disordered breathing: Clinical, physiological, neurocognitive and genetic
7:00 - 9:00 I Terrace 1

Chairs:
M. Barnes (Australia)

7:00pm - 7:30pm
Society Networking: Light food and drinks will be provided
RS4 Society Symposium SRS: Circadian rhythm sleep-wake disorders: Looking to the future
7:00pm - 9:00pm | Meeting Hall V

Chairs:
S. Abbott (United States)
7:00pm - 7:30pm

Society Networking: Light food and drinks will be provided
7:30pm - 7:40pm

Introduction
S. Abbott (United States)
7:40pm - 8:00pm

Delayed sleep-wake phase disorder: Functional consequences and management with melatonin
S. Rajaratnam (Australia)
8:00pm - 8:20pm

In search of novel circadian biomarkers
S. Abbott (United States)
8:20pm - 8:40pm

Sleep and circadian dysregulation in neurodegeneration
A. Videnovic (United States)
8:40pm - 9:00pm

Is it the time or the timing: The effect of sleep regularity/irregularity on mood, circadian phase and performance in college students
E. Klerman (United States)

World Sleep Society Membership

Individual Membership is open to public health officials, government representatives, health organization administrators, patient support group members, and the general public as affiliated non-voting members.

Student Membership and special dispensation for individuals from economically underprivileged countries are also available. The membership committee will establish membership categories and fees.

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* Founding Member | Listed in alphabetical order

Asian Sleep Research Society *
www.asronline.org

Australasian Sleep Association *
www.sleep.org.au

Australasian Sleep Technologist Association
sleepetechnologists.org

British Sleep Society
www.sleepsociety.org.uk

Bulgarian Association of Obstructive Sleep Apnea & Snoring
www.sleepapnea.bg

Canadian Sleep Society *
www.css-scs.ca

Czech Sleep Research and Sleep Medicine Society
www.sleep-society.cz

European Sleep Research Society *
www.esrs.eu

Federation of Latin American Sleep Societies *

Finnish Sleep Research Society
www.sus.fi

French Society for Sleep Research and Sleep Medicine
www.sfirms.org

German Sleep Society
www.dgsm.de

Indian Association of Surgeons for Sleep Apnoea
www.iassa.in

Indian Society for Sleep Research
www.issr.in

Integrated Sleep Medicine Society Japan
www.ismsj.org

International Restless Legs Syndrome Study Group
www.irllssg.org

Israel Sleep Society

Japanese Society of Sleep Research
jssr.jp

Peruvian Association of Sleep Medicine (Apemes)
www.apemesperu.com

Romanian Association for Pediatric Sleep Disorders
www.somn-copii.ro

Russian Society of Somnologists
www.sleep.ru

Serbian Sleep Society
www.sss.rs

Sleep and Wakefulness Medicine Moroccan Federation
www.fmmsv.com

Sleep Research Society *
www.sleepresearchsociety.org

Taiwan Society of Sleep Medicine
www.tssm.org.tw

Turkish Sleep Medicine Society
www.tuld.org.tr
25th Annual Meeting of the German Sleep Society
(Deutsche Gesellschaft für Schlafforschung und Schlafmedizin)

9–11 November 2017  
Münster

Topics
Keynote and opening lectures
Scientific symposia
Oral presentations
Poster presentations
Training courses
Young scientists symposium
Industrial exhibition
Industrial symposia
Meetings of DGSM work groups

Information
Registration
Abstract submission
www.dgsm-kongress.de
K11 H1N1, seasonality and childhood narcolepsy
F. Han (China)

Keynote 8:00am - 9:00am I Congress Hall

S78 Sleep at high altitude
9:00am - 10:30am I Meeting Hall IV

Chairs:
J. Ulfberg (Sweden)
9:00am - 9:05am
Introduction
J. Ulfberg (Sweden)
9:05am - 9:25am
Sleep, high altitude and glucose metabolism
L. Pham (United States)
9:25am - 9:45am
Sleep and breathing in children resident at high altitude
C. Hill (United Kingdom)
9:45am - 10:05am
Restless legs syndrome and iron status at higher altitudes
R. Gupta (India)
10:05am - 10:25am
Chamber hypoxia effects on sleep and PLMS
B. Högl (Austria)
10:25am - 10:30am
Question and answer
J. Ulfberg (Sweden)

S79 Cerebral networks during sleep and after sleep deprivation
9:00am - 10:30am I Meeting Hall V

Chairs:
J.-M. Lina (Canada)
9:00am - 9:02am
Introduction
J. Carrier (Canada)
9:02am - 9:19am
A brief review on functional connectivity metrics in sleep research
J.-M. Lina (Canada)
9:19am - 9:36am
Neuron-level functional and effective connectivity during NREM sleep: A highly heterogeneous picture of a global brain state
U. Olcese (The Netherlands)
9:36am - 9:53am
Human electrocorticography reveals cortical variability of spindle characteristics
G. Piantoni (United States)
9:53am - 10:10am
Thalamic functional connectivity during sleep in control subjects and patients with generalized epilepsy
A. Bagshaw (United Kingdom)
10:10am - 10:27am
Local and global connectivity changes during sleep loss in aging
G. Vandewalle (Belgium)
10:27am - 10:30am
Question and answer
J.-M. Lina (Canada)

S80 Sleep during early stage of life affects long-term outcomes
9:00am - 10:30am I North Hall

Chairs:
J. Kohyama (Japan)
9:00am - 9:05am
Introduction
J. Kohyama (Japan)
9:05am - 9:25am
Overview of the symposium and introduction of several cohort studies focusing on sleep
J. Kohyama (Japan)
9:25am - 9:45am
Sleep and child development – findings from the UK MCS
Y. Kelly (United Kingdom)
9:45am - 10:05am
Sleep problems among Japanese children and their outcomes: Results from the Toyama study
M. Sekine (Japan)
10:05am - 10:25am
Relationship of sleep with social-emotional and developmental outcomes in young children
J.A. Mindell (United States)
10:25am - 10:30am
Question and answer
J. Kohyama (Japan)

S81 Sleep, brain-heart relationships and sudden death risk
9:00am - 10:30am I Club A and B

Chairs:
V. Somers (United States), E. St. Louis (United States)
9:00am - 9:05am
Introduction
V. Somers (United States)
9:05am - 9:25am
From obstructed pharyngeal airway to obstructed coronary artery – mechanisms and clinical consequences
V. Somers (United States)
9:25am - 9:45am
Sleep and sudden cardiac death risk
A. Chahal (United Kingdom)
9:45am - 10:05am
Sleep, sleep apnea and sudden unexpected death risk in epilepsy
E. St. Louis (United States)

64 View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
10:05am - 10:25am
An update on infant apnea and SIDS
S. Kotagal (United States)

10:25am - 10:30am
Question and answer
E. St. Louis (United States)

S82 Animal models for restless legs syndrome: New developments and future challenges
9:00am - 10:30am I Club D and E

Chairs:
A. Salminen (Germany)

9:00am - 9:02am
Introduction
A. Salminen (Germany)

9:02am - 9:19am
MEIS1: Mouse models based on the highest-confidence RLS gene
A. Salminen (Germany)

9:19am - 9:36am
BTBD9: Modeling RLS in mouse and fly
Y. Li (United States)

9:36am - 9:53am
PTPRD: Knocking out a cell adhesion molecule to model RLS in mouse
G. Uhl (United States)

9:53am - 10:10am
Forward genetics: BDX 40 as an RLS animal model
R. Allen (United States)

10:10am - 10:27am
Comparison of current animal models and future perspectives
M. Manconi (Switzerland)

10:27am - 10:30am
Question and answer
A. Salminen (Germany)

S94 Circadian rhythm sleep-wake disorders and insomnia: What are the consequences and how do we optimize treatment?
9:00am - 10:30am I Terrace 1

Chairs:
Y.K. Wing (Hong Kong)

9:00am - 9:02am
Introduction
Y.K. Wing (Hong Kong)

9:02am - 9:19am
Independent or joint effects of eveningness and insomnia on mental health
S.X. Li (Hong Kong)

9:19am - 9:36am
Differential effects of circadian typology on sleep, fatigue, mood and quality of life
I.-Y. Yoon (Republic of Korea)

9:36am - 9:53am
Insomnia and cognitive function in shift-working police officers
S. Suh (Republic of Korea)

9:53am - 10:10am
Group cognitive-behavioral therapy for college students with insomnia: Effects on sleep and predisposing factors
T. Shochat (Israel)

10:10am - 10:27am
Optimization of prescription of prolonged-release melatonin based on sleep-wake schedules
S. Chung (Republic of Korea)

10:27am - 10:30am
Question and answer
Y.K. Wing (Hong Kong)

T07 Group scoring discussion: PLMD
9:00am - 10:30am I Club H

Chairs:
T. Penzel (Germany)

9:00am - 9:40am
AASM guidelines for scoring respiratory events in adults
A. Obeidat (United States)

9:40am - 10:20am
AASM guidelines for motor related events in adults
A. Obeidat (United States)

10:20am - 10:30am
Question and answer
A. Obeidat (United States)

K12 Parasomnias: A window into dream
I. Arnulf (France)

Keynote 9:45am - 10:30am I Congress Hall

K13 Sleep restriction in adolescents: Cognitive effects and remedies'
M. Chee (Singapore)

Keynote 10:30am - 11:15am I Congress Hall

S83 The relationship between sleep, pain and fatigue following traumatic brain injury: From bench to bedside
10:30am - 12:00pm I Meeting Hall IV

Chairs:
D. Zalai (Canada)

10:30am - 10:32am
Introduction
D. Zalai (Canada)

10:32am - 10:49am
Traumatic brain injury and sleep: A back and forth relationship with therapeutic potential
D. Noain (Switzerland)

10:49am - 11:06am
The interaction between pain and sleep in mild traumatic brain injury
S. Khoury (Canada)
11:06am - 11:23am | The clinical implications of sleep disturbance following brain injury
C. Wiseman-Hakes (Canada)

11:23am - 11:40am | Fatigue and its treatment following traumatic brain injury
S. Rajaratnam (Australia)

11:40am - 11:57am | Post-concussion insomnia: Contributing factors and assessment strategies
D. Zalai (Canada)

11:57am - 12:00pm | Question and answer
D. Zalai (Canada)

S84 Cortical nNOS neurons: A nexus between homeostatic sleep drive and EEG slow wave activity?
10:30am - 12:00pm | Meeting Hall V

Chairs:
T. Kilduff (United States)

10:30am - 10:40am | Introduction
T. Kilduff (United States)

10:40am - 11:05am | Coupling homeostatic sleep pressure to deep, consolidated sleep - a role for cortical nNOS/NK1 neurons
R. Williams (United States)

11:05am - 11:30am | Neurotransmitter control of cortical nNOS neuron excitability
R. Williams (United States)

11:30am - 11:55am | Modulation of nitric oxide synthase expressing neurons of the amygdala by sleep
M. Capogna (Denmark)

11:55am - 12:00pm | Question and answer
T. Kilduff (United States)

S85 Suicide, sleep and circadian rhythms in adolescents
10:30am - 12:00pm | North Hall

Chairs:
C.M. Shapiro (Canada)

10:30am - 10:32am | Introduction
C.M. Shapiro (Canada)

10:32am - 10:49am | The links between sleep and circadian rhythms with depression, suicidal thinking and behaviour
C.M. Shapiro (Canada)

10:49am - 11:06am | Insufficient Sleep And suicidality in Korean adolescents
Y.J. Lee (Republic of Korea)

11:06am - 11:23am | Effects of short sleep and school start time on mood in adolescents
J.J. Gooley (Singapore)

11:23am - 11:40am | Effects of Sleep on affective cognition in individuals with depression
E.Y.Y. Lau (Hong Kong)

11:40am - 11:57am | Depression, sleep difficulties and suicide risk in adolescents
A. Shahid (Canada)

11:57am - 12:00pm | Question and answer
C.M. Shapiro (Canada)

S86 Vitamin D and sleep
10:30am - 12:00pm | Club A and B

Chairs:
R. Silvestri (Italy)

10:30am - 10:35am | Introduction
R. Silvestri (Italy)

10:35am - 10:55am | Vitamin D: Muscle-skeletal, cardio-vascular and immune role in health and disease (recent evidence for a modulating effect in sleep disorders)
A. Stefani (Austria)

10:55am - 11:15am | Vitamin D deficiency in central hypersomnias
Y. Dauvilliers (France)

11:15am - 11:35am | Vitamin D and OSA: New evidence of a possible role in EDS
R. Silvestri (Italy)

11:35am - 11:55am | Vitamin D deficiency in RLS /WED and growing pains
R. Silvestri (Italy)

11:55am - 12:00pm | Question and answer
R. Silvestri (Italy)

O15 Chronobiology/circadian disorders oral abstract presentations
10:30am – 12:00pm | Club D and E

10:30am – 10:45am | DISRUPTING DIURNAL CYCLING OF NAD+-DEPENDENT SIRTUIN 1 DEACETYLASE ACTIVITY WITH GENOTOXIC STRESS OR CHANGING LIGHT/DARK CYCLES INCREASES SUSCEPTIBILITY TO MAMMARY CARCINOGENESIS BY UNCOUPLING DNA DAMAGE RESPONSE AND REPAIR GENES FROM CIRCADIAN CONTROL
H. Zarbl (United States)

10:45am – 11:00am | NEUROBEHAVIORAL ALTERATIONS IN MOUSE MODEL OF SHIFT WORK DISORDER
Y.J. Lee (Republic of Korea)
**S. Arora (India)**

11:00am – 11:15am

**EVENING LIGHT EXPOSURE FROM COMPUTER SCREENS DISRUPTS SLEEP, BIOLOGICAL RHYTHMS AND ATTENTION ABILITIES**

A. Green (Israel)

11:15am – 11:30am

**THE DIFFERENTIAL EFFECTS OF REGULAR SHIFT WORK AND OBSTRUCTIVE SLEEP APNEA ON SLEEPINESS, MOOD, VIGILANCE AND NEUROCOGNITIVE FUNCTION**

J. Cori (Australia)

11:30am – 11:45am

**MELATONIN SECRETION AND POOR SLEEP QUALITY IN PATIENTS WITH TETRAPLEAGIA : A PILOT STUDY**

R. Davillé-Blicq (France)

11:45am – 12:00pm

**A NEURAL NETWORK MODEL TO PREDICT CIRCADIAN PHASE IN NORMAL LIVING CONDITIONS**

J.E. Stone (Australia)

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**O16 Sleep breathing disorders oral abstract presentations**

10:30am – 12:00pm I Terrace 1

10:30am – 10:45am

**INTERACTION BETWEEN SEVERITY OF OBSTRUCTIVE SLEEP APNEA AND GENDER ON THE LEVEL OF HEMOGLOBIN**

T. Li (China)

10:45am – 11:00am

**NEUROMUSCULAR INJURIES IN THE SOFT PALATE CORRELATES WITH PHARYNGEAL DYSFUNCTION IN SLEEP APNEA SUBJECTS**

F. Shah (Sweden)

11:00am – 11:15am

**RESPIRATORY SYMPTOMS ARE MORE COMMON AMONG SHORT SLEEPERS INDEPENDENT OF OBESITY**

E. Björnsdóttir (Iceland)

11:15am – 11:30am

**EFFECT OF SLEEP APNEA AND INSOMNIA ON THE ASSOCIATION OF DEPRESSION WITH QUANTITATIVE ELECTROENCEPHALOGRAM MEASURES (QEEG) IN ADULT MEN DURING SLEEP - THE MAILES STUDY**

R. Adams (Australia)

11:30am – 11:45am

**WHOLE GENOME SEQUENCE ASSOCIATION ANALYSIS OF SLEEP-DISORDERED BREATHING TRAITS IN TRANS-OMICS FOR PRECISION MEDICINE (TOPMED)**

B. Cade (United States)

11:45am – 12:00pm

**CORRECTION OF SLEEP DISORDERS BY THE SENSOMOTOR CONTROL METHOD OF RESPIRATION IN PATIENTS WITH HYPERVENTILATION SYNDROME**

A. Barulin (Russian Federation)

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**O17 Sleep health and other issues oral abstract presentations**

10:30am – 12:00pm I Club H

10:30am – 10:45am

**SCHOOL START TIME CHANGE, SLEEP DURATION AND CAR CRASHES IN HIGH SCHOOL STUDENTS**

S. Bin-Hasan (Canada)

10:45am – 11:00am

**ACTIGRAPHIC SLEEP PATTERNS AND HYPERTENSION IN THE HISPANIC COMMUNITY HEALTH STUDY/STUDY OF LATINOS**

A. Ramos (United States)

11:00am – 11:15am

**EVALUATION OF SLEEP AND FACTORS AFFECTING IT IN PATIENTS RECOVERING IN INTENSIVE CARE UNITS (ICU) AND STEP DOWN UNITS (SDU)**

B. Prajapat (India)

11:15am – 11:30am

**QUALITY OF LIFE AND MOOD IN CHILDREN AND ADOLESCENTS WITH CYSTIC FIBROSIS; ASSOCIATIONS WITH SLEEP QUALITY**

M. Vandeleur (Australia)

11:30am – 11:45am

**SLEEP DURATION AS AN INDEPENDENT FACTOR ASSOCIATED WITH VITAMIN D LEVELS**

D.L. de Oliveira (Brazil)

11:45am – 12:00pm

**SLEEP HABITS IN INFANTS: THE ROLE OF MATERNAL EDUCATION**

R. Ferreira (Portugal)

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**K14 Circadian rhythm sleep disorders: Challenges in diagnosis and treatment**

D. Skene (Switzerland)

*Keynote* 11:15am - 12:00pm I Congress Hall

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**K15 Control of sleep-related breathing**

M. Morrell (United Kingdom)

*Keynote* 12:30pm - 1:15pm I Congress Hall

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**K16 Cardiovascular risk, OSA and CPAP (SAVE study)**

D. McEvoy (Australia)

*Keynote* 1:15pm - 2:00pm I Congress Hall

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**S87 Phenotyping and genotyping sleep apnea**

2:00pm - 3:30pm I Congress Hall

Chairs:

T. Penzel (Germany)

2:00pm - 2:02pm

**Introduction**

T. Penzel (Germany)

2:02pm - 2:19pm

**Phenotyping sleep apnea and the pathway to genotyping**

A. Pack (United States)

2:19pm - 2:36pm

**Quantify craniofacial differences**

R. Schwab (United States)

---

View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
### S88 Novel biomarkers for sleep insufficiency and sleep disorders

2:00pm - 3:30pm | Meeting Hall IV

**Chairs:**
D.-J. Dijk (United Kingdom)

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
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<tbody>
<tr>
<td>2:00pm - 2:05pm</td>
<td>Introduction</td>
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<tr>
<td>2:05pm - 2:25pm</td>
<td>Human blood transcriptome based biomarkers for insufficient sleep and circadian abnormalities</td>
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<tr>
<td>2:25pm - 2:45pm</td>
<td>Biomarkers for cognitive vulnerability to sleep deprivation and sleep insufficiency</td>
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<tr>
<td>2:45pm - 3:05pm</td>
<td>Metabolomics as a biomarker for sleep debt</td>
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<tr>
<td>3:05pm - 3:25pm</td>
<td>Morbidity-related biomarkers in pediatric obstructive sleep apnea</td>
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<tr>
<td>3:25pm - 3:30pm</td>
<td>Question and answer</td>
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</tbody>
</table>

**Abstracts:**
- **Human blood transcriptome based biomarkers for insufficient sleep and circadian abnormalities**
  D.-J. Dijk (United Kingdom)
- **Biomarkers for cognitive vulnerability to sleep deprivation and sleep insufficiency**
  J.J. Gooley (Singapore)
- **Metabolomics as a biomarker for sleep debt**
  T. Porkka-Heiskanen (Finland)
- **Morbidity-related biomarkers in pediatric obstructive sleep apnea**
  L. Kheirandish-Gozal (United States)

### S89 Restless legs syndrome, augmentation and dopamine treatment - clinical data and emerging new models

2:00pm - 3:30pm | Meeting Hall V

**Chairs:**
S. Clemens (United States)

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>2:00pm - 2:05pm</td>
<td>Introduction</td>
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<tr>
<td>2:05pm - 2:25pm</td>
<td>Augmentation: Caused by D1, D3 or D5 receptors?</td>
</tr>
</tbody>
</table>

**Abstracts:**
- **Augmentation: Caused by D1, D3 or D5 receptors?**
  W. Paulus (Germany)
2:20pm - 2:35pm  
A comparison between sleep compression and sleep restriction  
S. Jernelöv (Sweden)

2:35pm - 2:50pm  
Transdiagnostic approaches to treating sleep and circadian problems  
A. Harvey (United States)

2:50pm - 3:05pm  
An adaptive treatment strategy for Internet-CBT: Predicting and preventing failures  
K. Blom (Sweden)

3:05pm - 3:30pm  
Question and answer  
C. Morin (Canada)

O18 Technology and technical oral abstract presentations  
2:00pm – 3:30pm I Club A and B

2:00pm – 2:15pm  
PREDICTION OF LEVEL OF DROWSINESS USING AN ADAPTIVE GEOMETRIC BROWNIAN MOTION MODEL, WITH APPLICATION TO DROWSY DRIVING ACCIDENT PREVENTION  
P. Ebrahimbabaie Varnosfaderani (Belgium)

2:15pm – 2:30pm  
AUTOMATIC SLEEP CLASSIFICATION USING ADAPTIVE SEGMENTATION REVEALS INCREASED NUMBER OF SLEEP STAGE TRANSITIONS  
J.A.E. Christensen (Denmark)

2:30pm – 2:45pm  
ASSESSMENT OF SLEEP PARAMETERS FROM RAW ACCELEROMETRY DATA  
V.T. van Hees (The Netherlands)

2:45pm – 3:00pm  
ADVANCED ANALYSIS OF SLEEP SPINDLES: FROM HEALTHY TO DAMAGED BRAINS  
A. Mensen (Switzerland)

3:00pm – 3:15pm  
A MACHINE LEARNING APPROACH TO DETECTING SLEEP AND SLEEP DISORDERS IN ACCELERATION SENSOR DATA  
R. Leenings (Germany)

O19 Sleep breathing disorders oral abstract presentations  
2:00pm – 3:30pm I Terrace 1

2:00pm – 2:15pm  
THE ASSOCIATION BETWEEN OBSTRUCTIVE SLEEP APNEA AND ALZHEIMER’S DISEASE: A META-ANALYSIS PERSPECTIVE  
H. Khazaie (Islamic Republic of Iran)

2:15pm – 2:30pm  
WHETHER TONSILLECTOMY IS NECESSARY FOR PEDIATRIC OSA WITH SMALL TONSILS? DRUG INDUCED SLEEP ENDOSCOPY CAN TELL  
S. He (China)

2:30pm – 2:45pm  
SPONTANEOUS IMPROVEMENT IN BOTH OBSTRUCTIVE SLEEP APNEA AND COGNITIVE IMPAIRMENT AFTER STROKE  
J. Slonkova (Czech Republic)

2:45pm – 3:00pm  
THE PACE (PHARMACOTHERAPY OF APNEA BY CANNABIMIMETIC ENHANCEMENT) CLINICAL TRIAL: CHARACTERISTICS OF CLINICAL RESPONDERS TO DRONABINOL TREATMENT OF OBSTRUCTIVE SLEEP APNEA  
D.W. Carley (United States)

3:00pm – 3:15pm  
SAFETY AND EFFICACY OF 6-MONTH USE OF SHAM-CPAP IN OBSTRUCTIVE SLEEP APNEA PATIENTS  
L. Mello-Fujita (Brazil)

3:15pm – 3:30pm  
IMPROVING QUESTIONNAIRE SCREENING FOR OSA IN CHILDREN  
G. Nixon (Australia)

T08 Oximetry interpretation  
2:00pm - 3:30pm I Club H

Chairs:  
S. Keenan (United States), O. Ludka (Czech Republic)

Speakers:  
C. Navin (United Kingdom)

S92 Creating a framework for analyses of movement patterns of challenging/disruptive sleep and wake behaviours  
3:30pm - 5:00pm I Congress Hall

Chairs:  
O. Ipsiroglu (Canada)

3:30pm - 3:33pm  
Introduction  
O. Ipsiroglu (Canada)

3:33pm - 3:45pm  
Spontaneous movement patterns in infants  
A. Guzzetta (Italy)

3:45pm - 3:57pm  
REM sleep behaviour disorders  
I. Arnulf (France)

3:57pm - 4:09pm  
nREM sleep behaviour disorders  
F. Provini (Italy)

4:09pm- 4:21pm  
Sleep-related rhythmic movement disorders and epileptic movement patterns  
R. Silvestri (Italy)
4:21pm - 4:33pm
Assessment of vigilance
G. Kloesch (Austria)

4:33pm - 4:45pm
Hyperarousability-insomnia and hypermotor-restlessness (H-behaviours) in children with neurodevelopmental conditions
O. Ipsiroglu (Canada)

4:45pm - 4:57pm
State-of-the-art technologies to capture and analyze movement patterns
H. Garn (Austria)

4:57pm - 5:00pm
Question and answer
O. Ipsiroglu (Canada)

S93 Infra-slow (< 0.1 Hz) oscillations: From the cell to the clinic
3:30pm - 5:00pm I Meeting Hall IV

Chairs:
S. Fulda (Switzerland)

3:30pm - 3:35pm
Introduction
S. Fulda (Switzerland)

3:35pm - 3:55pm
Infra-slow oscillations in the thalamus: Mechanisms and significance
S. Hughes (United Kingdom)

3:55pm - 4:15pm
Wake-up or sleep-through the noise: Infra-slow timing of arousal
A. Lüthi (Switzerland)

4:15pm - 4:35pm
Human sleep spindle activity — ultra-powerful at infra-slow timing?
F. Weber (Germany)

4:35pm - 4:55pm
Sleep infra-slow oscillations in full band EEG recordings
S. Fulda (Switzerland)

4:55pm - 5:00pm
Question and answer
S. Fulda (Switzerland)

S95 Hypertrophic cardiomyopathy and sleep disordered breathing: Implications for atrial arrhythmias and sudden cardiac death
3:30pm - 5:00pm I North Hall

Chairs:
V. Somers (United States)

3:30pm - 3:35pm
Introduction
V. Somers (United States)

3:35pm - 3:55pm
Hypertrophic cardiomyopathy – one gene, many effects and difficult to manage
A. Chahal (United Kingdom)

3:55pm - 4:15pm
Sleep apnea: Pathophysiology and CV consequences – implications for HCM
V. Somers (United States)

4:15pm - 4:35pm
Atrial arrhythmias in hypertrophic cardiomyopathy – sleep apnea may be the missing link
T. Konecny (United States)

4:35pm - 4:55pm
Prevalence of sleep apnea in hypertrophic cardiomyopathy – what our preliminary data shows us
T. Kara (United States)

4:55pm - 5:00pm
Question and answer
V. Somers (United States)

S96 Autonomic disorders in sleep medicine
3:30pm - 5:00pm I Club A and B

Chairs:
M. Miglis (United States)

3:30pm - 3:33pm
Introduction
M. Miglis (United States)

3:33pm - 3:50pm
Sleep and autonomic impairment: Why does it matter?
P. Cortelli (Italy)

3:50pm - 4:07pm
Sleep apnea and cardiovascular autonomic dysfunction
C. Lombardi (Italy)

4:07pm - 4:24pm
Fatal familial insomnia: A model of sleep and autonomic dysfunction
G. Calandra Buonaura (Italy)

4:24pm - 4:41pm
Sleep disordered breathing in familial dysautonomia: Implications for sudden death during sleep
J.A. Palma (United States)

4:41pm - 4:58pm
Autonomic impairment in REM sleep behavior disorder
M. Miglis (United States)

4:58pm - 5:00pm
Question and answer
M. Miglis (United States)

S33 Sleep and the kidney
3:30pm - 5:00pm I Club H

Chairs:
P. Hanly (Canada)
3:30pm - 3:35pm
Introduction
P. Hanly (Canada)

3:35pm - 3:55pm
Impact of intermittent hypoxia on kidney histology: Evidence from animal models
N. Ayas (Canada)

3:55pm - 4:15pm
Effect of sleep apnea on kidney function: Evidence from human studies
P. Hanly (Canada)

4:15pm - 4:35pm
Sleep-disordered breathing in End-Stage Renal Disease (ESRD)
O. Lyons (Canada)

4:35pm - 4:55pm
Non-respiratory sleep disorders in End-Stage Renal Disease (ESRD)
M. Novak (Canada)

4:55pm - 5:00pm
Question and answer
P. Hanly (Canada)

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O20 Basic research oral abstract presentations
3:30pm – 5:00pm I Club D and E

3:30pm – 3:45pm
URINARY PROTEINS AS POTENTIAL BIOMARKERS FOR ADULT PATIENTS WITH OBSTRUCTIVE SLEEP APNEA
M. Kohli (India)

3:45pm – 4:00pm
HEARTBEAT-RELATED ACTIVITY OF CORTICAL NEURONS IN THE SLEEP-WAKE CYCLE IN CATS
V. Lavrova (Russian Federation)

4:00pm – 4:15pm
ULTRADIAN RHYTHMICITY IN SLEEP-WAKEFULNESS IS COLOUR-RELATED IN NESTLING BARN OWLS
M.F. Scriba (Switzerland)

4:15pm – 4:30pm
HYPOCRETIN (OREXIN) SIGNALING IN DISTINCT NEURONAL GROUPS DIFFERENTIALLY REGULATES OSCILLATORY COMPONENTS OF WAKEFULNESS AND SLOW-WAVE-SLEEP
A. Vassalli (Switzerland)

4:30pm – 4:45pm
MULTITASKING NETWORKS IN THE LATERAL HYPOTHALAMUS: THE ROLE INHIBITORY NEURONS IN SLEEP AND METABOLISM
C. Gutierrez Herrera (Switzerland)

4:45pm – 5:00pm
SLOW-WAVE ENERGY ENHANCEMENT ASSOCIATED WITH REDUCED SYNUCLEINOPATHY IN MURINE MODEL OF PARKINSON’S DISEASE
M.M. Morawska (Switzerland)

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O21 Insomnia oral abstract presentations
3:30pm – 5:00pm I Meeting Hall V

3:30pm – 3:45pm
TREATMENT OF INSOMNIA WITH MELATONIN IN PATIENTS AGED 45-60 YEARS OLD: A RANDOMIZED DOUBLE BLIND PLACEBO-CONTROLLED STUDY
Y. Qian (China)

3:45pm – 4:00pm
MARKERS FOR HYPNOTIC ABUSE LIABILITY: CORTISOL IN INSOMNIA
T. Roehrs (United States)

4:00pm – 4:15pm
IS THE INSOMNIA SEVERITY INDEX CUTOFF FOR REMISSION CORROBORATED BY SLEEP DIARY DATA AND PATIENT’S PERCEPTION?
S. Beaulieu-Bonneau (Canada)

4:15pm – 4:30pm
FALSE FEEDBACK ABOUT SLEEP DELIVERED VIA ACTIGRAPHY BIASES DAYTIME SYMPTOM REPORTS: IMPLICATIONS FOR INSOMNIA DISORDER AND WEARABLE DEVICES
D. Gavriloff (United Kingdom)

4:30pm – 4:45pm
A POTENTIAL PHARMACOLOGICAL TARGET OF INSOMNIA: THE MOLECULES INVOLVED IN THE CA2+-DEPENDENT HYPERPOLARIZATION PATHWAYS PLAY A PIVOTAL ROLE IN THE REGULATION OF SLEEP HOMEOASTIS
S. Shi (Japan)

4:45pm – 5:00pm
DATA-DRIVEN TOPIC ANALYSIS OF HIGH DENSITY EEG REVEALS CONCOMITANT SUPERFICIAL SLEEP DURING DEEP SLEEP IN INSOMNIA
J.A.E. Christensen (Denmark)

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O22 Restless legs syndrome (RLS/WED) and movement disorders oral abstract presentations
3:30pm – 5:00pm I Terrace 1

3:30pm – 3:45pm
EXECUTIVE AND VISUOSPATIAL DYSFUNCTION IN PRIMARY RESTLESS LEGS SYNDROME IN SOUTHERN CHINESE
J. Ma (China)

3:45pm – 4:00pm
PHYSIOLOGICAL CHARACTERISTICS OF RHYTHMIC MASTICATORY MUSCLE ACTIVITY DURING SLEEP IN JAPANESE CHILDREN
S.-Y. Lu (Japan)

4:00pm – 4:15pm
PHYSIOLOGICAL CHARACTERISTICS OF RHYTHMIC MASTICATORY MUSCLE ACTIVITY DURING SLEEP IN JAPANESE CHILDREN
S.-Y. Lu (Japan)

4:15pm – 4:30pm
PHYSIOLOGICAL CHARACTERISTICS OF RHYTHMIC MASTICATORY MUSCLE ACTIVITY DURING SLEEP IN JAPANESE CHILDREN
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4:30pm – 4:45pm
PHYSIOLOGICAL CHARACTERISTICS OF RHYTHMIC MASTICATORY MUSCLE ACTIVITY DURING SLEEP IN JAPANESE CHILDREN
S.-Y. Lu (Japan)

4:45pm – 5:00pm
PHYSIOLOGICAL CHARACTERISTICS OF RHYTHMIC MASTICATORY MUSCLE ACTIVITY DURING SLEEP IN JAPANESE CHILDREN
S.-Y. Lu (Japan)

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View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
4:15pm – 4:30pm  CIRCADIAN AND SLEEP HOMEOSTATIC MODULATION OF NEURONAL ACTIVITY IN DOPAMINERGIC AND STRIATAL STRUCTURES
K. Fifel (The Netherlands)

4:30pm – 4:45pm  SLEEP AND RESTLESS LEGS SYNDROME IN ADOLESCENTS WITH IDIOPATHIC MUSCULOSKELETAL PAIN
G.A. Moreira (Brazil)

4:45pm – 5:00pm  BRIEF AROUSALS FROM SLEEP WHEN ASSOCIATED WITH LEG MOVEMENTS PRODUCE SIGNIFICANT HEART RATE INCREASES WHILE AROUSALS WITHOUT LEG MOVEMENTS PRODUCE MOSTLY MARGINAL HEART RATE INCREASES
A. Wang (United States)

S97 Sleep and sexual dysfunction
5:30pm - 7:00pm I Meeting Hall V
Chairs: H.-W. Shin (Republic of Korea)
5:30pm - 5:35pm  Introduction
H.-W. Shin (Republic of Korea)
5:35pm - 6:00pm  Epidemiology of sexual function and OSA
K. Melehan (Australia)
5:55pm - 6:15pm  Sleep and Sexual function: Evidences from animal models
M. L. Andersen (Brazil)
6:15pm - 6:35pm  Effect of Sleep disturbance and OSA on sexual and reproductive function evidence from humans
C. Hoyos (Australia)
6:35pm - 6:55pm  Does OSA treatment improve sexual function?
H.-W. Shin (Republic of Korea)
6:55pm - 7:00pm  Question and answer
H.-W. Shin (Republic of Korea)

S98 Sleep and interventions in children and young people
5:30pm - 7:00pm I North Hall
Chairs: L. McLay (New Zealand)
5:30pm - 5:35pm  Introduction
L. McLay (New Zealand)
5:35pm - 5:55pm  Exploring the role of arousal in predicting sleep problems in youth and young adults with ASD
A. Richdale (Australia)

5:55pm - 6:15pm  Through the lens of a contingency: Designing individualized, functionbased and consumer-friendly interventions for sleep problems of children diagnosed with autism spectrum disorder
S. Jin (United States)

6:15pm - 6:35pm  Using functional behavioral assessment to inform treatments for unwanted co-sleeping in children with autism
L. McLay (New Zealand)

6:35pm - 6:55pm  FBA for sleep with clinically complex children with autism: Lessons from experienced and new clinicians
K. France (New Zealand)

6:55pm - 7:00pm  Question and answer
H.-W. Shin (Republic of Korea)

S99 Young Investigator: Oral presentation
5:30pm - 7:00pm I Club D and E
5:30pm – 5:45pm  SEEKING A NEW STANDARD: A NOVEL CHARACTERIZATION OF SLEEP SPINDLES THROUGH TIME-FREQUENCY PEAK ANALYSIS
M. Prerau (United States)
5:45pm – 6:00pm  ULTRA-SLOW (0.0002 HZ) FLUCTUATIONS IN HUMAN INTRACRANIAL RECORDINGS CORRELATE WITH SLEEP CYCLES
G. Piantoni (United States)
6:00pm – 6:15pm  THE EVOLUTIONARY CONSERVED MICRORNA MIR-137 REGULATES GENE EXPRESSION AND DIURNAL RHYTHM OF THE WAKE-PROMOTING HYPOCRETIN NEUROPEPTIDES
A. Holm (Denmark)
6:15pm – 6:30pm  EXPERIENCING FEAR IN DREAMS RELATES TO BRAIN RESPONSES TO AVERSIVE STIMULI DURING WAKEFULNESS
L. Perogamvros (Switzerland)
6:30pm – 6:45pm  TRAJECTORIES OF USE OF OVER-THE-COUNTER AND NATURAL PRODUCTS FOR SLEEP: A FIVE YEAR FOLLOW-UP
J.M.Y. Cheung (Canada)
6:45pm – 7:00pm  EXPLORATION OF CARDIAC AUTONOMIC FUNCTION BY MYOCARDIAL 123-I-MIBG SCINTIGRAPHY IN NARCOLEPSY TYPE 1
L. Barateau (France)
S100 The characteristics of type 2 narcolepsy in Asian patients
5:30pm - 7:00pm I Congress Hall

Chairs:
S.-C. Hong (Republic of Korea)
5:30pm - 5:32pm
Introduction
S.-C. Hong (Republic of Korea)
5:32pm - 5:49pm
Long-term follow up of MSLT variables in type 2 narcolepsy patients in Korea
S.-C. Hong (Republic of Korea)
5:49pm - 6:06pm
Characteristics of MSLT and PSG variables in type 2 narcolepsy patients
Y. Inoue (Japan)
6:06pm - 6:23pm
PET studies and lab finding in type 2 narcolepsy patients
Y.-s. Huang (Taiwan)
6:23pm - 6:40pm
Overview of type 2 narcolepsy cases in Korea
Y.H. Um (Republic of Korea)
6:40pm - 6:57pm
Type 2 narcolepsy in children and adolescents
F. Han (China)
6:57pm - 7:00pm
Question and answer
S.-C. Hong (Republic of Korea)

O23 Sleep breathing disorders and research oral abstract presentations
5:30pm – 7:00pm I Terrace 1
5:30pm – 5:45pm
ASSOCIATION BETWEEN DESATURATION INDICES AND COMORBIDITIES IN PATIENTS WITH OSA- A CROSS SECTIONAL STUDY
A. Choudhury (India)
5:45pm – 6:00pm
EVOLUTION OF SLEEP ARCHITECTURE AND LEVEL OF ALERTNESS MEASURED BY MWT IN APNEIC PATIENTS TREATED BY GENIOGLOSSUS STIMULATION (INSPIRE THERAPY)
P. Philip (France)
6:00pm – 6:15pm
TREATMENT OF SLEEP APNEA SYNDROME BY ELECTRICAL AURICLE STIMULATION USING MINIATURIZED SYSTEM OF SECOND GENERATION
V. Donic (Slovakia)
6:15pm – 6:30pm
MICROSTRUCTURE OF RESPIRATORY AROUSALS IN PATIENTS WITH SLEEP-DISORDERED BREATHING
H. Gouveris (Germany)

6:30pm – 6:45pm
INVESTIGATION OF NON-PAINFUL TACTILE STIMULI VIA BISPECTRAL INDEX SYSTEM DURING SLEEP
M. Ozgoren (Turkey)
6:45pm - 7:00pm
ROLE OF HYPO PHARYNGEAL COLLAPSE IN OBSTRUCTIVE SLEEP APNEA - HOW TO ADDRESS IT
R. Anand (India)

T09 Experiences in sleep medicine around the world
5:30pm - 7:00pm I Club H

Chairs:
S. Keenan (United States), O. Ludka (Czech Republic)
5:30pm - 5:40pm
Clinical practice in Canada
M. Eden (Canada)
5:40pm - 5:50pm
Clinical practice in Japan
N. Tachibana (Japan), H. Muraki (Japan),
5:50pm - 6:00pm
Clinical practice in Hong Kong
D.K.-K. Ng (Hong Kong)
6:00pm - 6:10pm
Clinical practice in the United States
A. Robinson (United States)
6:10pm - 6:20pm
Clinical practice in the Czech Republic
M. Pretl (Czech Republic)
6:20pm - 6:30pm
Clinical practice in Thailand
M. Veeravigrom (Thailand)

Closing Ceremony
7:00 - 7:30 I Congress Hall
Chairs:
C. Morin (Canada)
7:00 - 7:30
Closing remarks
C. Samuels (Canada), R. Gruber (Canada), C. Bastien (Canada)
CATAPLEXY:
FROM FUNDAMENTALS
TO THE CLINIC

INVITATION

TUESDAY 10TH OCTOBER 2017, 12:30-2:00 PM
CONGRESS HALL
Satellite Symposium of the World Sleep Congress
World Sleep 2017 Partners

World Sleep 2017 is pleased to announce this program was made possible, in part, by an Independent Medical Education Grant from Jazz Pharmaceuticals, Inc., as well as sponsorships from Bioprojet, Merck, Natus, Philips and Teva. We appreciate their support of our mission to provide the best in sleep medicine.

Booth 265 aamsinfo.org
The Academy of Applied Myofunctional Sciences (AAMS) is a non-profit (501c3 USA based) scientific society engaged in advancing research, scientific standards, education, and public health related to myofunctional therapy (MFT) around the world. The AAMS has helped start 11 regional non-profit scientific societies in the area of MFT around the world (Brazil, Japan, Scandinavia et al) and currently is helping in the formation of 14 new societies (Hong Kong/Taiwan/China, Australia, United Kingdom, et al). Join us as we help advance this important emerging field.

Booth 265 aomtinfo.org
The Academy of Orofacial Myofunctional Therapy (AOMT) is the leading post-graduate institution for allied health professional training in the area of orofacial myofunctional therapy. Additionally the AOMT helps facilitate research, curriculum development, and public health initiatives and has relationships with more than 40 universities and hospital groups around the world.

Booth 450 bioprojet.fr/bioprojet-pharma.html
Bioprojet Created in 1982 by Dr Jeanne-Marie Lecomte and Pr Jean-Charles Schwartz, Bioprojet is a medium size, independent Research and Development pharmaceutical company. Bioprojet’s purpose is to design, select and develop innovative drugs, mostly in the CNS field, acting on novel biological targets discovered in collaboration with basic science institutes like French INSERM.

Booth 620 brpt.org
Board of Registered Polysomnographic Technologists (BRPT) The mission of The Board of Registered Polysomnographic Technologists is to build upon its history as the global leader in sleep technologist credentialing and certification; provide high quality sleep technology products and services that inspire professional excellence, recognition, and lifelong learning; and create long-term value for credential and certificate holders.

Booth 610 ardeninnovations.com
Arden Innovations is the sole worldwide distributor for the CPAP Hose Lift and the BedSide CPAP Table – both innovative products that are essential elements to any and every successful CPAP – Sleep Apnea treatment System. Both products were designed for dual purpose use – at Home, and during Travel.

Booth 310 advancedbrainmonitoring.com
Advanced Brain Monitoring, Inc. is an industry leader in the development of novel diagnostic and treatment technologies for the sleep medicine field. The Sleep Profiler is clinically-validated system for sleep and sleep-disordered breathing in the home or ICU. Night Shift and Apnea Guard deliver therapy to those suffering from Sleep Apnea.

View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
Booth 605  camntech.com
CamNtech Ltd has over 20 years of experience with wearable technology for sleep monitoring. The MotionWatch is one of the smallest, lightest Actigraphy devices currently available with recording for up to 120 days. Manufactured to the highest standards in our ISO13485 facility, our products are CE marked, FDA cleared medical devices.

Booth 470  cerevast.com
Cerevast Medical, Inc. is a neuroscience company specializing in treatment of neurological disorders. Neuros™ Sleep utilizes pulsed Transdermal Electrical Stimulation (pTES) to modulate nerves in the face and neck which form pathways to regions of the brain involved in regulation of sleep and mood. Cerevast is also developing transcranial ultrasound (TUS) to enhance thrombolytic effect after ischemic stroke and improve clinical outcomes during post-stroke rehabilitation.

Booth 615  cidelec.net
CIDELEC is a French company manufacturing diagnostic devices for sleep breathing disorders. Our polygraph and polysomnograph use our unique PneaVoX technology based on tracheal sound analysis. CIDELEC systems offer a complete range of portable ambulatory devices and sleep laboratory system.

Booth 345  compumedics.com.au
Compumedics Ltd, founded in 1987, is a global leader in innovative medical technology solutions for sleep diagnostics, neuro-diagnostics and brain research. Compumedics offers a comprehensive range of innovative solutions for in-lab, ambulatory, home and research applications. Compumedics has produced many world’s-first such as the High-Definition GraeHiHD system and the Bluetooth-enabled, PSG-Anywhere SomtePSG. Compumedics leads the sleep software market with their ProFusion Sleep Suite and neXus Lab management products.

Booth 435  condorinst.com.br/en
Condor Instruments offers high quality wrist actimeters (actigraphs) for medical and research applications, specially tailored for sleep and circadian disorders monitoring.

Booth 315  dymedix.com
Dymedix Diagnostics, Inc., (DDI) is a United States based medical device company that manufacturers and globally markets innovative sleep diagnostic (PVDF) reusable and disposable airflow, snoring, and respiratory effort sensors in adult and pediatric versions. DDI is committed to developing technology to advance the science of sleep diagnostics medicine.

Booth 500  emfit.com
Team Emfit consists of 20 highly motivated, skilled and experienced professionals. Together the team has over 150 years of experience at Emfit. Many of the members are owners at the company, living in Finland, Germany, USA, Canada and China. The whole team has a complementary set of skills including science, engineering, sales experience and entrepreneurship.

Booth 630  earls.eu
European Alliance for Restless Legs Syndrome (EARLS) aims to increase awareness of restless legs syndrome. EARLS is an umbrella organization of national patient advocacy groups. At World Sleep 2017, EARLS will present the results of a major study on the cost of mis- and late diagnoses and treatment of RLS, done in collaboration with the European Brain Council and the London School of Economics.
Booth 475 esrs.eu
European Sleep and Research Society (ESRS) is an international scientific non-profit organization and promotes all aspects of sleep research and sleep medicine. This includes the publication of the Journal of Sleep Research (JSR), the organization of scientific meetings, and the promotion of training and education, the dissemination of information, and the establishment of fellowships and awards.

Booth 625 ifa3d.com
IFASD Medical Solutions GmbH was founded 2016, as an outsourcing of the Institute of Anaplastology Velten & Hering. We have experience in individual Breathing Masks over 20 years. Now we use the 3D Technology, to produce light and best fit Individual Masks for Patients with Sleep Disorders.

Booth 465 hypersomniafoundation.org
Hypersomnia Foundation is a US public 501(c)3 nonprofit with a mission to improve the lives of people with idiopathic hypersomnia and related disorders by advocating on their behalf, providing support, educating the public and healthcare professionals, raising awareness, and funding research into effective treatments, better diagnostic tools, and, ultimately, a cure for these debilitating conditions.

Booth 525 inspiresleep.com
Inspire Medical Systems, Inc. is the leading developer of innovative, implantable neurostimulation systems to treat Obstructive Sleep Apnea. Utilizing technologies from the fields of cardiacl pacing and neurostimulation, Inspire has developed an Upper Airway Stimulation therapy, designed to improve sleep and enrich the lives of people suffering from sleep apnea.

Booth 245 iopimedical.com
IOPI Medical LLC manufactures the Iowa Oral Performance Instruments (IOPI), products that objectively measures tongue and lip strength and can be used for biofeedback for oral motor exercises. It is typically used by speech pathologists and otolaryngologists with patients that have a variety of diseases, such as stroke, head and neck cancer, traumatic brain injury, Parkinson’s disease, Bell’s palsy and ALS.

Booth 300 ihypnus.com
Hypnus is a new series of high performance CPAPs in OSA therapy devices, several technologies are ahead of the international leading level. Through accurate detection and following of advanced respiratory events, it can adaptively adjust the treatment pressure and flow, with super low noise, providing user a quiet, natural and comfortable sleeping environment, and significantly improving treatment compliance.

Booth 303 loewensteinmedical.de/en
Löwenstein Medical GmbH + Co. KG has been a company in the Löwenstein Group since 2013. The development, production and marketing of diagnostic and therapeutic solutions for sleep medicine and homecare ventilation are among the core competencies of the firm. The success of products “Made in Germany” is based on good ideas, years of experience, foresight and innovations.
Booth 545   myluminette.com
Lucimed is a Belgian company specialized in the conception and manufacturing of wearable light therapy solutions to treat depressive disorders and sleep disorders.

Booth 420   sprachwahl.thera-mon.com
MC Technology GmbH is focusing on smart technical solutions by means of implementing state of the art technology and sophisticated but easy to use software approaches. TheraMon® is a dedicated Micro chip system for reporting objective patient compliance of dental appliances like orthodontic braces or MRA’s for patients suffering from sleep apnea. Knowing objective patient compliance is essential for effective and fast treatment considerations.

Booth 330   natus.com
Natus is a leading provider of healthcare products used for the diagnosis and monitoring of neurological disorders, such as epilepsy, sleep disorders, stroke, neuropathies, neuromuscular diseases, myopathies and neurosurgical procedures. Product offerings include computerized neurodiagnostic systems for neurology, polysomnography, software systems and a complete range of supplies and accessories.

Booth 485   noxmedical.com
Nox Medical builds medical devices for sleep diagnostics. Our mission is to advance sleep diagnostics through simplification, increased efficiency and comfort in all patient groups. Nox Medical’s products include a full range of sleep diagnostic solutions, such as the Nox T3, Nox A1 PSG System, and the Noxturnal Software.

Booth 455   orthoapnea.com
OrthoApnea Investigation and innovation are the main cornerstones of OrthoApnea, providing revolutionary solutions for Mandibular Advancement Devices (MAD). The implementation of the newest technologies, uniting clinical research and scientific collaboration with top Sleep Experts and major Hospitals and Universities turned OrthoApnea into a leading global company into the Dental Sleep Medicine.

Booth 445   oventus.com.au
Oventus Medical is an Australian medical device company commercializing a revolutionary treatment platform for snoring and obstructive sleep apnoea (OSA) via a suite of oral appliances. Our O2Vent™ customized oral devices incorporate Oventus Airway Technology – a unique airway built into its patented design, allowing for breathing through the device to bypass nasal resistance and velopharyngeal obstruction.

Booth 425   phasya.com
Phasya offers solutions for measuring drowsiness levels and ocular movements (i.e. blinks, saccades, pupil dilation) from eye images. Our product “Drowsimeter R100” enables researchers to do easily these measurements. Phasya also develops solutions for detecting other physiological and cognitive states such as stress, cognitive load, consciousness, and mind wandering.

View the electronic final program to read full summary, learning objectives, target audience and more on worldsleepcongress.com
PHILIPS

Booth 405
philips.com
Philips seeks to transform how healthcare is delivered. As a global leader with 40+ years of leadership in sleep apnea management, oxygen therapy, noninvasive ventilation and respiratory drug delivery, we are committed to developing novel solutions to help people sleep and breathe better.

Quant\{Actions\}

Booth 635
quantactions.com
QuantActions technology transforms behavioural patterns from smartphone taps into actionable insights, while preserving user privacy. Benefits include improved patient compliance, simplified clinical trial management and access to rich data sets for research into multiple disorders.

ResMed

Booth 410
resmed.com
ResMed (NYSE: RMD) changes lives with award-winning medical devices and cutting-edge cloud-based software applications that better diagnose, treat and manage sleep apnea, chronic obstructive pulmonary disease (COPD) and other chronic diseases. ResMed is a global leader in connected care, with more than 3 million patients remotely monitored every day.

Sefam

Booth 335
sefam-medical.com
Since it was founded in 1982, the Nancy-based French company SEFAM has been designing, manufacturing, and commercializing diagnostic and therapy devices for Sleep disordered breathing.

Somnics

Booth 360
somnomedics.eu
SOMNOmedics designs, manufactures, markets, distributes and services products dedicated to sleep diagnostics. Our products are utilized for a variety of sleep related tests and comply with the AASM standards. SOMNOmedics devices are small, lightweight and worn by the patient. We are compatible with in lab diagnostics as well as home sleep testing. SOMNOmedics wireless solution allows patients video, audio and data to be observed from any environment.

Seven Dreamers Laboratories

Booth 305
nastent.sevendreamers.com
Seven Dreamers Laboratories, Inc. is a company where a group of technologists create and develop things that the world has never seen. We created laundroid, a fully automatic laundry folding robot, as well as nastent, a device to reduce snoring in sleep apnea. Moreover, we develop carbon golf shafts which are fully made-to-order with high quality and design.

Sleep Multimedia Inc.

Booth 350
sleepmultimedia.com
Sleep Multimedia Inc. SleepMultiMedia v. 10.0 is a computerized textbook of sleep medicine with text, sound, graphics, animation, & video. Updated annually with 140 CME credits, the program covers clinical sleep medicine, dental sleep medicine, sleep physiology, polysomnography, sleep research and sleep practice management. NEW: Online real-time access to references through Medline. Available on a USB Flash Drive.
Booth 480
Ternimed UG specializes in high-quality medical accessories and consumable materials for neurological and sleep medical diagnostic. Based on many years of professional experience in the field, we have an elevated level of technical competency in dealing with issues relating to neurology and sleep medicine. Sound consultation and excellent support are key points of our activities to meet customer needs.

starwoodhotels.com/westin
Westin Hotels & Resorts, a leader in wellness and hospitality for more than a decade, empowers guests and associates to embrace well-being and be their best selves through the brand's six pillars of Well-Being: Sleep Well, Eat Well, Move Well, Feel Well, Work Well, and Play Well. At more than 200 hotels and resorts in nearly 40 countries and territories, guests can experience offerings that include the iconic Heavenly Bed, RunWESTIN and Westin Gear Lending with New Balance, delicious and nutritious SuperFoodsRx™ and more.

Booth 225
Wisepress.com, Europe’s leading conference bookseller, attend around 200 conferences every year. We have an extensive range of books and journals relevant to the themes of this conference available at our booth. We also have a comprehensive range of STM titles available on our online bookshop. Follow us on Twitter @WisepressBooks.

Save the date for the next World Sleep Day® on March 16, 2018.
Exhibitor Floor Plan

225 – Wisepress Ltd.  
245 – IOPI Medical  
265 – Academy of Applied Myofunctional Sciences & Academy of Orofacial Myofunctional Therapy  
300 – Guangzhou Hypnus Healthcare  
303 – Lowenstein  
305 – Seven Dreamers  
310 – Advanced Brain Monitoring  
315 – DyMedix Diagnostics  
330 – Natus  
335 – SEFAM Health Tech  
345 – Compumedics  
350 – Sleep Multimedia  
360 – Somnomedics  
405 – Philips  
420 – MC Technology GmbH  
425 – Phasya  
410 – ResMed  
435 – Condor  
445 – Oventus Medical  
450 – Bioproject  
455 – Ortho Apnea  
465 – Hypersomnia Foundation  
470 – Cerevast Medical  
475 – ESRS  
480 – TerniMed UG  
485 – Nox Medical  
500 – Emfit Ltd  
520 – Somnis  
525 – Inspire  
545 – Lucimed  
605 – CamNtech Limited  
610 – Arden Innovations  
615 – Cidelec  
620 – Board of Registered Polysomnographic Technologists (BRPT)  
625 – Institut für Anaplastologie Berlin  
630 – European Alliance for RLS  
635 – QuantActions
Sleep Medicine Research Foundation
KICK-OFF PARTY
During WORLD SLEEP 2017
DRESS: CASUAL

Tuesday October 10, 2017 | 20:00-22:30
Prague, Czech Republic

THE GREAT HALL- NEW TOWN HALL PRAGUE
Karlovo namesti 1/23 | Charles Square,
Prague 120 00, Czech Republic

Join the Sleep Medicine and Research Foundation for our Inaugural Reception and help support the work & collaborations of Dr. Christian Guilleminault and advance the state of sleep health worldwide.

The Sleep Medicine and Research Foundation invites you to a Kick-Off Party on Tuesday October 10th, 2017 during World Sleep 2017, in celebration of the 40th Anniversary of Dr. Christian Guilleminault’s first description of pediatric sleep apnea and the 45th Anniversary of his first description of central sleep apnea and insomnia syndrome. Please join us for hors d’œuvres, and unlimited wine, beer and drinks from 20:00 - 22:30++  *Program starts at 21:00*

Speakers in Tribute
Jed Black, Oliviero Bruni, David Gozal, Meir Kryger, Atul Malhotra, Marie Marklund, Joy Lea Moeller, Pierre Jean Monteyrol, Daniel Ng, Judy Owens, Paola Pirelli

Online RSVP address:
www.sleepmedicineresearchfoundation.org/register

A JOINT CONGRESS OF
WORLD ASSOCIATION OF SLEEP MEDICINE
& WORLD SLEEP FEDERATION
www.worldsleepcongress.com
New Approaches to Personalizing Treatment of Insomnia: Why? and How?

Monday, 9 October 2017
12:30 – 14:00

Conference Center
Meeting Hall IV
Prague, Czech Republic

Chair: Charles Morin

AGENDA

12:30 – 12:40 Welcome and Introduction
Charles Morin

12:40 – 13:00 Health Consequences of Insomnia: Cognition, Mood, and Medical Impact
Charles Morin

13:00 – 13:20 Personalization of Insomnia Therapy: Matching Treatment Mechanisms With Patient Needs
Andrew Krystal

13:20 – 13:40 Orexin Receptor Antagonists in the Management of Insomnia – Mechanisms and Clinical Implications
Thomas Roth

13:40 – 14:00 Closing Remarks and Q&A
Charles Morin
Challenges of Recognizing and Treating Excessive Sleepiness

Excessive sleepiness is a serious, debilitating, condition with consequences not only for the individual, but also for public health and safety.

It is time to listen experts to discuss the challenges of recognizing and treatment of excessive sleepiness.

Monday, October 9th, 2017 | 12.30 - 14.00 pm
Prague Congress Centre - Congress Hall Auditorium

Schedule:

12:30 - 12:45 pm
Opening Remarks - R. Rosenberg, PhD, USA

12:45 - 13:15 pm
Excessive sleepiness (ES) in OSA - R. Grunstein, MD, Australia

13:15 - 13:45 pm
Therapeutic Approaches to ES - R. Rosenberg, PhD, USA

13:45 - 14:00 pm
Panel Discussion - R. Rosenberg, PhD, USA and R. Grunstein, MD, Australia
ADVANCING SLEEP DIAGNOSTICS

Satellite Symposium

Evolution of Sleep Medicine – Challenging the Status Quo
Tuesday, October 10th 2017
12:30 – 13:15, Prague Convention Centre – North Hall

Speakers

Allan I. Pack, M.B.Ch.B., Ph.D., FRCP
John Midot Professor of Medicine
Director, Center for Sleep and Circadian Neurobiology
Perelman School of Medicine at the University of Pennsylvania

Erna Sif Arnardóttir, PhD
Director of Sleep Measurements
Landspítali – The National University Hospital of Iceland
Postdoctoral Researcher and Adjunct Professor, University of Iceland

Chair

Prof. Liborio Perrino
Associate Professor of Neurology
Director School of Specialization in Neurology
Director, Sleep Disorders Center
University of Parma, Italy

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