

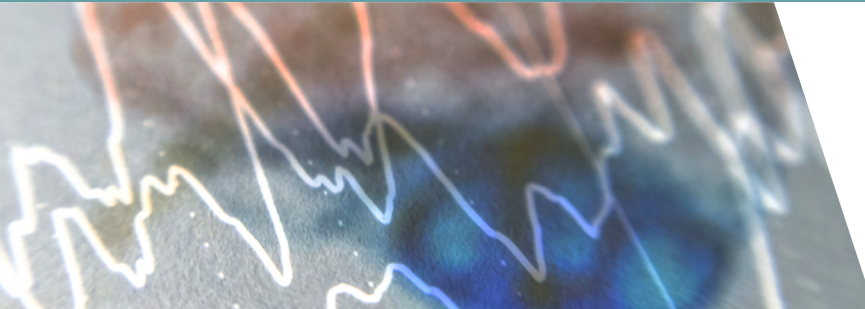


European Sleep Foundation  
Fondazione Europea Sonno



v 2.1 24/02/2020

PROGRAM



**SsWS** SLEEP SCIENCE  
WINTER SCHOOL

**01-04/03/2020**

**WENGEN HOTEL REGINA**

IN COLLABORATION WITH:



**u<sup>b</sup>**

UNIVERSITÄT  
BERN

Interfaculty Research Cooperation:  
Decoding Sleep



SLEEP SCIENCE WINTER SCHOOL

***Dear Scientists,***

We are pleased to announce the 3<sup>RD</sup> Sleep Science Winter School for March 1-4, 2020 and to continue the long-standing tradition of this scientific meeting in the stunning Bernese Alps. Our preliminary inspiring program includes two topical keynote lectures given by international experts in the field on microbiota and sleep and the brain mechanisms of awareness and consciousness.

Seven scientific sessions provide newest insight into the key topics of the Bern Network of Epilepsy, Sleep and Consciousness (BENESCO). Starting with a session on infraslow oscillations, we continue with the topic of the interrelation of pain and sleep and then deepen the topic of sleep breathing disorders, one of the most common sleep disorders and known for its harmful effects on the cardio-cerebrovascular system. On Tuesday, we start with a session on metabolism and sleep. Thereafter the Interfaculty Research

Cooperation “Decoding Sleep” (<http://www.sleep.unibe.ch/>) organizes a scientific session covering their key research topics. We then round up this Winter School with a session on self-consciousness highlighted from a neuropsychological perspective and last but not least a session on epilepsy looking at the temporal dynamics of seizures from a patient’s chronotype to a single neuron.


We also introduce new program elements with two teaching courses for young scientists, a data blitz session and a BENESCO Session where scientists are given a platform to present and discuss their newest research findings.

We hope you join us for the upcoming Sleep Science Winter School,

On behalf of the BENESCO, the European Sleep Foundation and the organizing committee.



**BENESCO EXECUTIVE BOARD**


-  **Antoine Adamantidis** *Experimental Neurology, Bern University Hospital*
- Urs Albrecht** *Biology Dept., University of Fribourg*
- Claudio Bassetti** *Neurology Dept., Bern University Hospital*
- Thomas Dierks** *Psychiatry and Psychotherapy Dept., Bern University Hospital*
- Daniel Erlacher** *Sports Science Dept., Bern University Hospital*
- Matthias Gugger** *Pneumologie Dept., Bern University Hospital*
- Katharina Henke** *Psychology Dept., Bern University Hospital*
- Mauro Manconi** *University of Bern, Università della Svizzera Italiana, Neurocentro della Svizzera Italiana, Ospedale Regionale di Lugano*

- Christoph Nissen** *Psychiatry and Psychotherapy Dept., Bern University Hospital*
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- Kaspar Schindler** *Neurology Dept., Bern University Hospital*
- Roland Wiest** *Clinical Neuroscience, Bern University Hospital*

**ESF BOARD**

-  **Claudio Bassetti** *Neurology Dept., Bern University Hospital*
-  **Winfried Randerath** *Pneumology Dept., Hospital Bethanien gGmbH, Solingen*
-  **Luigi Ferini-Strambi** *Sleep Disorders Center Dept., IRCCS Ospedale San Raffaele, Milan*

**ORGANIZING COMMITTEE**

-  **Antoine Adamantidis** *Experimental Neurology, Bern University Hospital*
- Andrea Barzago** *European Sleep Foundation Organizing Secretary, Lugano*
- Maxime Baud** *Neurology Dept., Bern University Hospital*
- Simone Duss** *Neurology Dept., Bern University Hospital*
- Stephany Fulda** *Sleep & Epilepsy Center, EOC Lugano*
- Martin Hatzinger** *Psychiatry and Psychotherapy Dept., Solothurner Spitäler*
- Roger Hunziker** *Scientific Assistant, Bern University Hospital*

## DAY 1 - **SUNDAY, 1<sup>ST</sup> MARCH 2020**

- 14.00 Participants' registration
- 14.40 Welcome and introduction

### SCIENTIFIC SESSION 1 **SLEEP AND ANAESTHESIA**

- 15.00 EEG-based brain monitoring during general anaesthesia - *HEIKO KAISER (Uni. Bern)*
- 15.20 From biomimetic sleep to sleep-like general anaesthesia. Feasible transition? *FRIEDRICH LERSCH (Uni. Bern)*
- 15.40 EEG changes during emergence from general anaesthesia *DARREN HIGHT (Uni. Bern)*

#### **KEYNOTE LECTURE I**

- 16.00 Sleep & circadian interaction *STEVEN A. BROWN (Uni. Zurich)*

#### **TEACHING COURSE I**

- 17.15 The art of presentation - *KASPAR SCHINDLER (Uni. Bern)*

- 19.00 🍽️ Dinner

## DAY 2 - **MONDAY, 2<sup>ND</sup> MARCH 2020**

### SCIENTIFIC SESSION 2 **INFRASLOW OSCILLATIONS**

👤 CHAIRS: *S. FULDA (EOC, Lugano)*,  
*A. LÜTHI (Uni. Lausanne)*

- 08.30 Insights into the neural mechanisms of infraslow rhythms - *ANITA LÜTHI (Uni. Lausanne)*
- 08.50 Waking up during the night - timing of microarousals in relation to the infraslow oscillation of mouse NREM sleep *ROMAIN CARDIS (Uni. Lausanne)*
- 09.10 Infraslow oscillations during human sleep *STEPHANY FULDA (EOC, Lugano)*
- 09.30 Periodicity without a Zeitgeber *MAXIME BAUD (Uni. Bern)*
- 10.00 ☕ Coffee break

## SCIENTIFIC SESSION 3

### **PAIN**

👤 CHAIRS: *M. HATZINGER (Uni. Basel)*,  
*T. NEVIAN (Uni. Bern)*

- 10.30 Gamma oscillations in the somatosensory cortex are aversive and enhance pain *MANFRED OSWALD (Uni. Heidelberg)*
- 11.05 Sleep and pain *SIGRID SCHUH-HOFER (Uni. Heidelberg)*
- 11.40 Cellular mechanisms of altered cortical oscillations in chronic pain *THOMAS NEVIAN (Uni. Bern)*

- 12.15 🍴 Lunch

### SCIENTIFIC SESSION 4 **PHENOTYPING IN BREATHING DISTURBANCES DURING SLEEP**

👤 CHAIRS: *W. RANDERATH (Uni. Solingen)*,  
*A-K. BRILL (Uni. Bern)*

- 13.45 Endotypes - Phenotypes? Definition, validation, clinical and scientific relevance *DIRK PEVERNAGIE (Uni. Ghent)*

- 14.15 More than sleepiness: Clinical phenotypes in OSA - lessons from cluster analyses *TARJA SAARESRANTA (Uni. Turku)*
- 14.45 More than the apnoea-hypopnoea-index: an integrative approach to obstructive sleep apnoea - *WINFRIED RANDERATH (Uni. Solingen)*

- 15.15 ☕ Coffee break

#### **TEACHING COURSE II**

- 15.45 Slam dunk papers - from writing to reviewing - *FLAVIO FRÖHLICH (Uni. of North Carolina)*

- 17.00 ☕ Coffee break

#### **DATA BLITZ & POSTER SESSION**

- 17.15 Data blitzes of young scientists with evaluation and awards
- 18.30 Poster viewing with aperitif


- 20.00 🍽️ Dinner

## DAY 3 - TUESDAY, 3<sup>RD</sup> MARCH 2020

### SCIENTIFIC SESSION 5

#### CHRONOBIOLOGY, SLEEP & METABOLISM

 CHAIRS: A. ADAMANTIDIS (*Uni. Bern*),  
U. ALBRECHT (*Uni. Fribourg*)

- 08.30 Role of circadian clocks in dopaminergic neurodegeneration - *EMI NAGOSHI (Uni. Geneva)*
- 08.50 Impact of sleep deprivation on glucose metabolism and the master circadian clock *ETIENNE CHALLET (Uni. Strasbourg)*
- 09.10 Effect of the clock gene Bmal1 on sleep-wake rhythms - *KATRIN WENDRICH (Uni. Fribourg)*
- 09.30 REM sleep stabilizes hypothalamic representation of feeding behavior *LUKAS OESCH (Uni. Bern)*
- 10.00  Coffee break

### SCIENTIFIC SESSION 6

#### IRC DECODING SLEEP

 CHAIRS: C. BASSETTI (*Uni. Bern*),  
F. MAST (*Uni. Bern*)

- 10.30 Brain circuits of sensory processing *NEVIAN THOMAS (Uni. Bern)*
- 10.50 Learning auditory patterns in the absence of consciousness or attention *TZOVARA ATHINA (Uni. Bern)*
- 11.10 Tickborne encephalitis (pathogenesis/epidemiology) - *LEIB STEPHEN (Uni. Bern)*
- 11.20 Sleep-wake disturbances following tickborne encephalitis (human part) *DIETMANN ANELIA (Uni. Bern)*
- 11.40 Sleep-wake disturbances following tickborne encephalitis (animal part) *CHIFFI GABRIELE (Uni. Bern)*
- 12.15  Lunch and  FREE AFTERNOON (*see next page*)

#### KEYNOTE LECTURE II

- 18.00 Engineering of Hallucinations: Neuroscience, Robotics and Medicine *OLAF BLANKE (EPFL, Geneva)*


20.00  Dinner

## DAY 4 - WEDNESDAY, 4<sup>TH</sup> MARCH 2020

### SCIENTIFIC SESSION 7

#### BODY AWARENESS AND SELF-CONSCIOUSNESS


 CHAIR: L. HEYDRICH (*Uni. Hospital Bern*)

- 08.30 Turning body and self inside out - the neuroscience of extero - and interoceptive signal integration *LUKAS HEYDRICH (Uni. Bern)*
- 08.50 Immersive Digiceuticals *OLAF BLANKE (EPFL, Geneva)*
- 09.10 Altered states of bodily self-consciousness *BIGNA LENGGENHAGER (Uni. Zurich)*
- 09.30 Self-motion perception during caloric vestibular stimulation *GERDA WYSSEN (Uni. Bern)*
- 10.00  Coffee break

### SCIENTIFIC SESSION 8

#### EPILEPSY

 CHAIRS: M. BAUD (*Uni. Bern*),  
K. SCHINDLER (*Uni. Bern*)

- 10.30 Chronotypes in epilepsy *MARC GRAU (Uni. Hospital Bern)*
- 10.50 Seizures as one dynamical state of cortex *TIMOTHÉE PROIX (Uni. Geneva)*
- 11.10 Seizures dynamics at the neuronal level *PIERRE MÉGEVAND (Uni. Geneva)*
- 11.30 Neural models and their epilepsy *FLAVIO FRÖHLICH (Uni. of North Carolina)*
- 12.00  Farewell aperitif

## FREE AFTERNOON ACTIVITIES

*Tuesday 03/03 (13.00-18.00)*

The organizing secretary suggests:



### FOX RUN

4.5 kilometres sledging run right next to the magnificent Lauberhorn descent: from the Wengernalp railway station to Wengen station (altitude difference 599 meters). Sledges can be hired onsite.



### CURLING

This fascinating sport combines precision and playfulness: try to guide these stones to the centre of the «house» it's not as easy as it looks – and the weight of the stones shouldn't be underestimated either.



### ICE SKATING

In the middle of the village centre, right next to the Tourist Information Center, the open-air ice rink in Wengen is appreciated way beyond the Lauterbrunnen valley for its superbly prepared artificial ice.



### SKIING

Two valleys, three mountain ranges and over 200 km of perfectly groomed slopes: the Jungfrau Ski Region above Wengen is one of the most popular and spectacular winter sports destinations in Europe.



### WINTER HIKING

Around the Lauberhorn there are various wonderful winter hiking trails that cover all levels of experience. Hands down the best opportunity to enjoy the beauty of nature from up close.



### CROSS-COUNTRY SKIING

Around Wengen there are 27 km of cross-country trails, most of which are also suitable for beginners. The route "Lauterbrunnen-Stechelberg-Lauterbrunnen" with its 12 km is one of the longest in the region.



**PLEASE NOTE** that no organized activities have been planned or booked by the organizing secretary.

For further information, scan the QR CODE.

## MEETING VENUE

### HOTEL REGINA

Wengen Zentrum - 3823 Switzerland  
www.hotelregina.ch - +41 33 856 58 58

## REGISTRATION FEE INCLUDES:

- Participation to the Winter School
- Conference materials
- Coffee breaks
- Lunches

## ESF BRACELET

The ESF bracelet identifies you as Hotel's guest and gives you free access to breakfasts and dinners according to your own reservation.

Indeed, we kindly ask you to wear and keep it until the end of the meeting.



## CREDITS

- Graduate School for Health Science (GHS), University of Bern Graduate School for Cellular and Biomedical Sciences (GCB), University of Bern: **1,5 ECTS**
- Swiss Neurological Society (SNG): **SUN 01/03** 3 credits, **MON 02/03** 8 credits, **TUE 03/03** 6 credits, **WED 04/03** 4 credits
- Swiss Society for Sleep Research, Sleep Medicine and Chronobiology (SGSSC): **SUN 01/03** 4 credits, **MON 02/03** 9 credits, **TUE 03/03** 4,5 credits, **WED 04/03** 3 credits
- Swiss Society for Clinical Neurophysiology (SGKN/SSNC): **SUN 01/03** 3 credits, **MON 02/03** 4 credits, **TUE 03/03** 2 credits, **WED 04/03** 4 credits

## EVALUATION FORM

Your opinion is very important for our improvement process! We kindly ask 2 minutes of your precious time to answer some questions related to the quality of the event. Scan the QR CODE or visit [www.research.net/r/ssws20](http://www.research.net/r/ssws20)



## PATRONAGE



## ORGANIZING SECRETARY



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## LOCAL ORGANIZER



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### For more information:

[www.europeansleepfoundation.ch/event/sleep-science-winter-school-2020](http://www.europeansleepfoundation.ch/event/sleep-science-winter-school-2020)